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## CLINICAL LECTURE.

### THE TREATMENT OF SEVERE PHLEGMONS.*

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*Gentlemen:* As far as we are compelled to resort to surgical interference, it is always a chief aim to avoid any possible infection of the wound. Further, in all cases of infectious or septic inflammation, it is our one endeavor to bring the infectious process to an end as speedily as possible.

Without question our knowledge of these subjects has been broadened of late years, and this assertion is amply proven by the single fact that the number of infectious phlegmons, or septic traumatic infections is infinitely less than what it was not many years since. Nevertheless, the number of these cases which, either from neglect or ignorance, have been allowed to run on, and are brought to the attention of the practitioner is still very large. A glance at recent medical literature, especially as set forth in medical journals, will show that in spite of the many recent advances in modern surgery, the therapy of this subject has been but little studied and has not received the attention it has merited. For this reason I feel justified in devoting this lecture to a consideration of so all-important a subject, trusting only that the experiences here set forth may be a guide and a help to you, and perhaps ultimately stimulate you to individual researches.

My own experiences with the subject have been very extended. It has been a peculiarity of my experiences in Greifswald that an unusual number of cases of seven phlegmonous processes, as well as eight cases of acute purulent infiltration, have come under my care—far more than I ever saw while either as assistant at the Leipzig Hospital, or occurring among the large amount of material that came under my care in the Polyclinic of Munich. It may be that the impoverished condition of the people is a factor in this peculiarity, but apart from this it is undoubtedly a fact that these as well as analogous infectious processes—such as acute purulent osteomyelitis—occur with much greater frequency here than in the other places mentioned. Under these circumstances the treatment of cases of severer phlegmonous inflammations, although different in individual cases, must still be regarded as more or less typical, since certain rules have not only always been adhered to, but have as well been always indicated.

In the closer consideration of this subject, we will take, for instance, cases of phlegmonous inflammation of the hand and forearm, which have been caused, we will say, by an insignificant puncture wound of the little finger, and which has rapidly spread. Immediately after the admission of such a case, its only place is the operating table.

If we are right in following the old rule, viz., that an incarcerated hernia demands immediate treatment, and a release of the incarcerated bowel, then such an action as immediate surgical interference in acute phlegmonous processes is most assuredly indicated, There is absolutely no need of putting such a patient to bed upon admission to the hospital, even though his arm be well bandaged and supported. A spreading of the infectious process, together with the continuance of the absorption of the poisonous, fever-producing products of the septic inflammation would only be the result, not only injuring the general condition of the patient and jeopardizing the life of the tissues, but also increasing the risk of a subsequent, and very possible lethal termination of the disease. An immediate operation is, therefore, the only rational indication in such cases, and as soon as the case has been satisfactorily diagnosed, preparations for the operation should be at once commenced.

*Translated from the *Berliner Klinische Wochenschrift.*

The patient should be first bathed, if possible, and then placed upon the operating table in a convenient position. It will be of value, also, to see that the arm is accessible both from the dorsal and the inner side. For my part I make it a practice to place the entire arm upon a small table placed at the side of the one upon which the patient lies. This arrangement I have found to be most convenient, and greatly facilitating the operation. After the patient has been thoroughly anæsthetized, the skin of the arm and fingers is carefully washed and scrubbed with hot soap and water, and shaved, and finally rendered antiseptic by the use of disinfectants. The arm is then elevated until it is perpendicular, and without any further manipulation, or stroking, an Esmarch's rubber is placed around the arm below the shoulder, and the limb thus rendered bloodless.

There is, perhaps, no other operation, in my opinion, in which I consider a bloodless condition of the limb of such importance. If this condition of bloodlessness is considered indispensable in the operation of sequestrotomy in order to be able to trace the course of small fistulæ, I would also declare it indispensable in this operation where an exact knowledge of the extent of the spread of the suppurative elements, as well as the tracing of small isolated foci of suppuration, is of the greatest possible importance. Even œdematous swellings of the upper half of the arm, do not restrain me from the applications of the Esmarch's tube or bandage. I have never observed any harm to follow its use. If the phlegmonous process has reached as far as the shoulder, we have, in the majority of cases, a condition in which the conservative surgeon can generally be of no value, and in which the question is either one of exarticulation or amputation.

We now may proceed to make our initial incision, which should be done after making the arm tense. As as illustration we will presume, as I have previously stated, that the initial point of infection is upon the fifth finger. The incision should begin at the point of infection, and should be continued in the direction of the length of the finger, rather to one side of the flexor tendons. An assistant should then pull the edges of the wound apart with small hooks, as otherwise the field of the operation can not be seen sufficiently clearly. If the pus channel within or close to the sheath of the tendon, it will be well to insert a sound or grooved director, and to increase the incision by cautiously cutting down on this with the knife or scissors. In this way the incision is gradually enlarged until it reaches the palmar surface of the hand, through which it is continued, care being taken to avoid any injury to the tendons, nerves, and larger vessels. The *ligamentum carpi volare* is then reached and cut through. In phlegmonous processes originating in the little finger, the suppurative process will be found to be located on the ulnar side of the common flexors, and the incision should be continued in this direction; which, if we are dealing with an infectious process originating on or near the thumb, we will find that the suppuration will be confined nearer to the radical side of the forearm, and our incision should be enlarged in this direction.

Often we will find incapsulated foci of suppuration between the muscles, and perhaps even under the deep common flexor of the fingers so that the interosseal fascia will have to be opened. In all cases the incision should be extended up the arm until both ocular examination and palpation convince us that healthy tissue has been reached.

The entire operation should be performed with great nicety, care being taken not to injure the edges of the wound, and also not in any way to injure or tear the infected tissues, and doing so to increase the liability to a continuance of the septic process. When necessary other incisions should be added to the main incision, and these may be located either on the palmar or dorsal surface of the hand, as the case indicates.

The goal we are striving for in the performance of this operation is complete eradication of the phlegmonous process by the single operation, so that no subsequent surgical procedure may be necessary. For years past, in discussing these subjects before my students, I have made use of the following expression: "Our honor as physicians demands that we should cause a stoppage of the infectious process by a single operation." In fact, our honor is in the maintenance of our patients' best good, and to this end it is by no means immaterial whether they be kept under the influence of such a poisonous process for a long or short time. On the contrary the local as well as general condition of the patient is endangered more and more every hour the infectious process continues.

If the operation as described by me is successful—and it fortunately usually is—the patient will be free from fever and convalescent within a very few days, or at the most three days.

I am a strong opponent to any other treatment of these septic processes. I have never seen good results from a simple puncture of

the infected parts, and small incisions with drainage accomplished but little more. Regarding drainage, it is in many cases absolutely prejudicial, since the rubber drainage through erosion, may lead to arterial hæmorrhages, the opening of tendon sheaths, and, indeed, to a serious impairment of the joints of the hand. The only place I think the use of the drainage tube is at all admissible is from the highest point of the incision if on the flexor side of the fore-arm and extending nearly to the elbow, and protruding some distance further down.

The operation having been completed, we now come to a consideration of the traumatism thus produced. For some time past *I have omitted all disinfection of the wound.* I was first awakened to the possible value of this omission on purely theoretical grounds, and have since had ample opportunity to demonstrate the correctness of this theory by numerous practical tests. Why should we wish to injure or even perhaps cauterize the tissues, when upon the recovery of their strength and health rests the entire success of our operation? Why should we seek to further injure the already severely poisoned organism by causing the absorption of disinfectants? So, after the operation I limit myself to a gentle douching and careful washing of the parts with a six per cent. sterilized solution of salt and water; and this only in order to completely remove all blood and matter from the wound. By the adoption of this precaution the probabilities for the ultimate success of the operation are greatly enhanced. Further grounds for this method of treatment tending to show the inutility of the antiseptic treatment of the wounds resulting from the operation for phlegmonous processes, I do not think are either necessary or called for. Yet we know from the writings of many eminent surgeons and investigators that the action of disinfectants upon the kidneys can be a most unfavorable one and maintenance of a healthy and active condition of the kidneys is of greatest importance in cases of septic infection. The local action of disinfecting douches in insufficient operations is entirely illusionary; in thorough and extended operations it is entirely unnecessary.

Now comes the bandage, which should be applied if possible while the patient is under the influence of the anæsthetic, and after all the visible vessels have been tied. This consists, primarily of the introduction of one large or several smaller pieces of iodoform gauze in the wound, so that all crevices and cavities are covered by a layer of the gauze. This application of the iodoform gauze should be executed with great care and nicety. A large quantity of the gauze is not required—one layer over the tissues being amply sufficient. By this the superficial healing of the wound is guarded against, and free exit of secretions from the deeper portions is assured. Sterilized gauze would answer the same purpose if it would keep in place and unchanged, but in these very particulars iodoform gauze is vastly superior, since it will keep in place, while the superficial dressing and bandage can be daily changed. In about a week this gauze will become loosened and as a rule under it will be found normal granulating surfaces.

The subsequent indications for treatment are but simple. Over the superficial wound, and surrounding the limb, should be applied a moist warm dressing, the dressing being preferably moistened with Thiersch's solution of salicylic and boric acid (1.0 to 15.0—500.0 grammes). This dressing will prevent the decomposition of the secretions it absorbs.

Over this should come "protective" or gutta-percha paper, and then the limb carefully placed in a well padded arm rest or splint in a natural and comfortable position.

The constricting Esmarch's bandage having now been removed, the arm is held in an almost vertical position in order to avoid possible hæmorrhage, and to favor the recovery of the tissues. After three or four hours the arm is lowered to a moderately elevated position upon a pillow. The dressings should be removed the next day, but the iodoform gauze not disturbed.

If such a treatment is strictly followed, healing will result more rapidly than when treated by any other method. The wound will develop normal granulations, and the necrotic parts will be thrown off.

It is of the greatest importance to the definite result of the healing that this condition of the wound shall be brought about as speedily as possible. As soon as the entire wound is evenly covered with granulations, or the small necrotic portions can be removed by excisions, it can be regarded as an aseptic wound. Nothing stands in the way of its secondary healing, on the contrary it offers the best possible promises for an ultimate complete restoration of all the functions of the hand and arm.

Concerning the importance of and the method of making the suture of the secondary wound in these cases, I have already spoken in the *Münchener Med. Wochenschrift*, some time since. Its successful performance in healing wounds following phlegmonous infections is a point of great importance, and one upon

which the final result of operation greatly depends.

It will be self-evident from examination, as to what degree a freshening of the edges of the superficial wound will be necessary in order to insure a good union. The granulations should be removed to a great extent with the handle of the scalpel, in order to insure a healing of the wound without an intervening cicatricial tissue. The more thorough the preparation of the edges of the skin, and of the wound itself, the better. This not alone for the sake of rapid healing, but because every cicatrix, apart from its tendency to contract, forms a vulnerable point which might very probably lead later to an erosion with subsequent reinfection. A quick healing might also be obtainable by transplantation, but unless absolutely necessary this should not be done, as the results offered by it relative to the ultimate motility and use of the limb are not nearly as good as those held forth by a healing by first intention.

The edges of the wound are now cautiously brought together by sutures, and small drains may be placed in the deepest portions. Tension should be avoided as much as possible, as the stitches easily cut through the skin. It is well, if necessary, to reinforce the stitches with strips of adhesive plaster,

The rapid healing of this wound is now of great importance, so that a mobilization of the hand and fingers may be commenced early. For this latter purpose all the modern aids of value can be applied, including passive movements, bathing, active movements in the water bath, massage, electricity, compresses and fixation in different positions at night. A very valuable addition to our armamentarium in this respect, is the apparatus designed by Dr. Krukenberg, which consists in the application of a pendulum to stimulate and restore the motility of the hands and fingers. Caps or rings are placed upon the fingers, to which a pendulum is attached, and the latter set in motion. Apart from the direct utility of the apparatus, which I most heartily recommend, it will prove a most agreeable occupation to the patient, who can thus be busied in restoring the motion of the joints of hand and fingers. I know of no other procedure so effective and valuable, and I use the apparatus constantly in various modified forms in my polyclinic.

I would have been pleased to show you today one of my most recent cases of phlegmonous infection, but, unfortunately, the patient, who is a man, is compelled to be at work, and so I must content myself in calling your attention to these photographs of his hand. (Demonstration.)

Apart from a slight contraction of the little finger, the flexor tendons of which were necrotic, the hands and fingers are perfectly normal, both in appearance and motility. The patient, a working man, 32 years old, was admitted to this clinic on the sixth of March, and operated upon at once. The phlegmon had appeared after a slight injury to the little finger of the right hand, which had occurred on Feb. 27th. On admittance the hand and fore-arm up to the upper third, were greatly swollen and tense; the axillary glands were as large as hazel-nuts, the temperature 39.10 C. The patient was immediately anæsthetized and the arm rendered bloodless. The skin was freely divided from the seat of the injury to some distance beyond the volar carpal ligament, the latter being cut through. The incision was made on the ulnar side of the hand and arm, and care was taken not to injure the ulnar nerve. The flexor tendon of the little finger was found to be necrotic. Pus pockets were found between the muscles, and on the inter-osseous ligament, as far up as the upper half of the fore-arm. After complete division of the skin over the infected parts, they were washed with the sterilized salt and water solution (6 per cent.); then a dressing as previously described was applied. On March 7, the day after the operation, the temperature had fallen to 37.3° C. in the morning, and 39.5° C. at night. March 8, temperature 37.6° in the morning, and 38.8° at night. After March 9, there was no fever.

On March 18, the granulations were scraped off and the wound entirely closed, except at one point on the little finger. Healing occurred quickly and good movement was obtained. The patient was discharged on May 4.

The patient was again seen on August 24, and both the appearance of the hand and fingers, and the motion and strength found to be entirely normal. There were no erosions. It will now be very evident to you why I, in the treatment of these cases, have laid such stress upon the quickest possible production of an aseptic wound, as the key to ultimate success, functionally and otherwise.

Various questions now arise. Is it possible to obtain absolute asepsis at a single sitting, and at once to proceed to close the wound? This, without doubt would be the ideal procedure which *a priori* we are striving after, but in practice can the desired end be thus accomplished? I would acknowledge the possibility of this being true in cer-

tain cases, but believe that in the majority the results would be most disastrous, not only locally but generally, and, therefore, I cannot look upon such a method as either rational or justifiable. The *non nocere* is more important in this instance, in the majority of cases, than the dazzling promises of uncertain results in a few.

All that has been said in this lecture can be applied to the treatment of analogous phlegmonous processes in other parts of the body. On the subject of operations for acute purulent infiltration, I would like to add a few words. In these cases only the most energetic treatment can save, and the question is not one of saving an extremity, but of saving life. I have been able to save some cases in which the septic process was already very far advanced.

A clearer idea may perhaps be obtained by the recital of a case of a boy, which was, as far as the local condition was concerned, the most severe I have ever met, and I take pleasure in showing you photographs of the same. This infiltration extended from the calf of the leg to the pelvis. A portion of thigh seemed almost gangrenous. I made several longitudinal incisions, about an inch and a half apart from each other, and thus forming strips of skin which subsequently contracted, and removed a large amount of pus and cellular tissue infiltrated with pus. The boy made a good recovery, although transplantation was necessary in order to effect a complete closure of the wounds. The boy, now 16 years of age, is entirely well and strong.

I might quote you many similar cases which resulted favorably—others again in which there was a lethal ending in spite of our most energetic treatment.

The prognosis of severe local septic process does not depend solely upon the age or strength of the patient. It is far more unfavorable if we are dealing with heavy drinkers, or if the kidneys are in any way diseased.

Nevertheless, the surgical treatment in all cases of phlegmon constitutes our most valuable treatment of this disease, and I shall be pleased and satisfied if this lecture will tend to stimulate you to study in this direction, or aid you in the successful treatment of such septic processes.

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THE NUMBER of micro-organisms in a fluid, milk for instance, may be greatly diminished by subjecting the same to centrifugal action. Some germs are more readily removed than others.

## CLINICAL FEATURES OF THE PRESENT EPIDEMIC OF INFLUENZA.

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*Gentlemen:* I desire to call your attention this morning to some cases illustrating different forms of influenza. The cases will also show some of the complications of this disease.

CASE I. Male, 35 years of age; born in Ireland, occupation fireman, was admitted on the 29th of December last. Family history is as follows: Father died of paralysis; mother living and healthy, brothers and sister living and healthy. He had all the diseases of childhood; fair health previous to last illness; has been a hard drinker. Six weeks ago the onset of the present attack occurred, when he thought he had taken a heavy cold. He began to cough and sneeze a great deal; shortly after his knees became painful and swollen, the right ankle was also somewhat painful and slightly swollen. He had pains at the same time in the head, back, and left side around the heart. His cough became frequent, dry, and he expectorated very little.

Now, gentlemen, from the history of this patient there is no doubt that the man had an attack of influenza, which has developed very interesting complications. The first of the latter to which I would like to call your attention is the condition of the joints. He had, as you will recall, pains and slight swelling of knees and one of the ankle-joint. This you will see is a picture resembling closely cases of rheumatism. But, gentlemen, in cases of influenza we encounter conditions exactly similar to the one we have met with here. In these instances you will find very little, if any, disposition of the trouble to change from one joint to another, and, as a rule, no cardiac complications, which occur so frequently in articular rheumatism. We must bear in mind, however, that we do meet with cases, and not a few, in which there may or may not be joint symptoms, and yet, we may have cardiac murmurs present. This is not due to valvalitis, but due to an altered condition of the blood. The next interesting complication in this case, and one which I have very frequently met with during the present epidemic, is acute pharyngitis. In some cases, both tonsils and the palatine arches are affected, and are the seat of follicular ulcers.

The temperature it is interesting to note, notwithstanding these two complications of

considerably severity, has not been much elevated. That is one of the peculiarities of the prevailing epidemic, viz., a low temperature. In young persons who were previously in good condition, the temperature did become elevated, but very often not to any great extent, in spite of several forms of complications.

Case II. The next patient is a female, born in Germany, occupation, domestic. Her father and mother died during her childhood; one brother died of phthisis and one of dropsy. She has had the diseases of childhood. Seventeen years ago the patient had the same condition as at present, she thinks. She is married, has two children, and has had no miscarriages; menstruates regularly. One week before admission she had pain in head, back, and limbs; stools yellow in color. Temperature on date of admission 102⅘°, afterward 103⅘°, subject, as you notice on this chart, to marked irregularity. The pulse was rapid, respirations were rapid and decidedly panting in character; eyes bright; pupils dilated; tongue coated with a heavy white fur; tenderness over abdomen, but no distension; cough, dry, hacking; expression, cyanotic; consolidation at both bases. Second day after admission; sputum rusty, pain and tenderness in abdomen still, some distension; consolidation at base of lungs; urine showed hyaline casts with considerable albumen; the bowels were moved several times within the twenty-four hours, stools thin, ochre in color, offensive odor.

In order to go as briefly as possible over the history of this case, we may mention, at once, that it presents three features of decided interest.

In the first place nearly all her local symptoms were referable to the abdomen. She very soon, however, developed a severe complication of the lungs, namely, lobar pneumonia. Then she also had renal symptoms, which are of decided interest. Now, from the history of this case, and from an examination of her urine, we may justly conclude that this patient was suffering, before the date of the onset of her influenza, from a latent form of Bright's disease; for, while we do find albumen, epithelial and hyaline casts in influenza, we do not find granular casts, as a rule. But the point to be borne in mind is that when a subject of this sort is attacked with influenza, all the former minor symptoms become very much intensified, and you are apt to have very severe complication attending the attack of "grip."

We did not think this patient would progress anything like as well as she has. Indeed, the prognosis of all cases of this sort, in which you have associated latent Bright's disease and lobar pneumonia as a complication, more especially when the latter is double, is highly unfavorable. Now, we are not quite sure whether this woman had Bright's disease previous to the onset of this trouble; I have given you my reasons for thinking so. There are cases in which there had been no previous trouble with the kidneys, and yet well marked renal symptoms, as in this case, have developed during the attack. In such cases the urine becomes normal as soon as the patients have fully convalesced.

I wish to refer to one other point; from the history you will notice that she had many symptoms of typhoid fever. Oft-times at the commencement of influenza, you may be puzzled to decide whether you have a case of typhoid fever or influenza to deal with. In all cases where you have symptoms that excite suspicion of typhoid, as we have here, you should be on the look-out for the more characteristic symptoms of typhoid fever. As long, however, as you do not have swelling of spleen or the characteristic eruption you will not be justified in making a diagnosis of typhoid fever, however closely the symptoms simulate those of the latter disease.

This woman still has a great deal of tenderness over the abdomen, and this reminds me that I should speak of another interesting feature in connection with her case. You may touch her almost anywhere and she gives signs of pain. Now, what does this mean? Hyperthesia of the skin, another interesting complication of the influenza. You do not meet with it very frequently, but when you do you have a very valuable diagnostic symptom.

Case III. The next patient that I wish to bring to your notice is one that also illustrates that grave lung complication, namely, lobar pneumonia, but there are other features of great interest not presented by Case II.

The patient's initials are J. C., born in England; no occupation; weight 135. Mother died of phthisis, father of paralysis. Had diseases of childhood, and four years ago had rheumatism.

Three weeks ago had sick stomach, pain in back, stitch in left side, legs swollen; was not confined to bed. On admission had consolidation of most of left lung; cough troublesome, breathing labored, somewhat panting, temperature 101°; heart's action frequent, weak and irregular, and presence of mitral systolic murmur. Now, the history of this case up to January

1st was similar to the one which has just been taken out. We had here the back-ache, fever, and note especially what we have had in all the cases, pain in left side around the heart. In almost every case that I have met with during the present epidemic, this symptom, namely, the stitching, burning pain has been more marked on the left side than on the right. You will also notice that this patient developed lobar pneumonia at the end of one week. And here let me lay stress on the fact that lobar pneumonia is a complication which is very apt to come on late in the disease, most frequently during convalescence.

Now in connection with this case of lobar pneumonia, I wish to call your attention more especially to the condition of the heart. Remember, from the man's history, we learned that he had acute rheumatism four years ago; he also gives a syphilitic history. Under these circumstances we would be likely to find chronic valvular disease existing. Doubtless, this was true of this young man before he developed influenza, because we have here on palpation a decided thrill, and on auscultation, a murmur which is systolic in rhythm and harsh. We cannot outline the heart very well by percussion on account of the dullness to which the consolidation gives rise, but we have sufficient physical signs to enable us to make the diagnosis of chronic valvular disease. It is not strange then that when admitted he should have had a very feeble, rapid pulse; it is not strange that he should have developed swelling of the feet the moment he was stricken with the influenza. Even where perfect compensation has existed before the onset of influenza in valvular disease, you are very apt to have dilatation of the right side, followed by swelling of the feet, and other evidences of failure of compensation. This ensuing case then, illustrates the fact that in persons suffering from chronic valvular disease of the heart we see grave forms of influenza attended by the graver kinds of complications, namely, broken compensation, lobar pneumonia, etc. It is well known that where you have right-sided dilatation and the patient becomes affected with influenza, you have a very grave form of the disease, but I do not know it to be stated in text-books that where you have chronic valvular disease, dilatation and dropsy are apt to follow. The heart should be carefully attended to from the onset of the disease.

Case IV. J. W., aged fifty-four, born in America; occupation laborer, admitted to the male medical wards of the Philadelphia Hospital January 6th, 1892. Family history negative. When quite a boy while skating was precipitated into the water through an air hole; following this he had articular rheumatism which has made him a cripple for life.

Present illness began with severe pain in the head, limbs, back, and chest, especially, however, in the head, and in the right shoulder, and again in the region of the heart. On examination at time of admission there was found consolidation of right apex; expectoration thick, yellow in color, not rusty; cough troublesome. This man we learn, began with cough accompanied with slight expectoration, cough loud and ringing as we find it in many cases of influenza. In many instances of influenza, especially at the beginning, the severe paroxysms of coughing much resembled whooping cough.

But there is another set of causes in which the initial condition of the tubes and larynx is a state of intense irritation, followed by a genuine bronchitis. Since we have in this case, in addition to a small area of consolidation, the history of bronchitis, from the beginning of the attack, lobular and catarrhal pneumonia may safely be diagnosticated.

Some contend that you have first collapse of a portion of the lung, with congestion around the seat of the collapse which leads to consolidation. The cause of this collapse and congestion it is contended is enlargement of the bronchial or tracheal glands or both, associated with marked disturbance of the great nervous tract at the root of the lung.

Few men in the profession are, perhaps, familiar with the fact that if we make percussion over the four upper dorsal vertebræ you get normally tympanitic or tubular resonances, while below this point, i. e., the fourth dorsal, you get a more nearly normal resonance. When you have a case of inflammation of the bronchial and tracheal glands you have a decided dullness down to the point at which the bronchi bifurcate, the lower edge of the fourth dorsal. The complication lobular pneumonia is more frequently met with in influenza than lobar pneumonia.

Case V. I will simply relate to you very briefly the notes and show you the temperature chart of this patient, without troubling you with the physical signs.

The patient was convalescent, but exposed himself on the night of January 1st, this was followed by pain in the back, head and chest a severe rigor, cough and greenish-white sputum at first, afterwards somewhat rusty. Consolidation of the base of the lung and apex of the other side was noted on admission. This is a very interesting condition. This is also a case of lobar pneumonia. From the temperature chart you will observe the

temperature reached 104°, and having kept at that height for five or six days we may now soon look for a crisis. This case also illustrates the fact that the consolidations are apt to be double in influenza, and bear in mind too, if you please, that this case developed lobar pneumonia three weeks after the onset of the influenza.

Let me briefly in conclusion call your attention to the treatment of this disease, influenza. In the first place we hear a great deal about arranging all the cases into two or three large categories or types. Now, the present epidemic better than the one that prevailed two years ago shows how impracticable this proposition really is. There are too many cases in which the types merge into one another. It is far better to arrange them into classes according to the severity of the cases, according to Wilson's suggestion. There is no doubt that there is a very large class of cases which never betake themselves to bed; on the other hand there is a middle class in which the temperature is pretty high, the patient betakes himself to bed and remains there from three to five days. Then you have the graver form of the trouble in which you have the serious complications arising.

The milder cases require little or no treatment. Let the patient keep warm, taking possibly quinine in moderate doses. Tell them to abstain from meats. Never give hot drinks except on the first day. If you fail to abort the attack they increase the pain, aud more especially the headache. Give cooling drinks.

The second class of cases are those who have considerable fever with catarrh of the bronchia, or of the stomach, or possibly other organs. Now, these require a special form of treatment; not very often are we required to use antipyretics with the object of reducing the temperature. We have, however, a good remedy in quinine. We give as much as 12 to 16 grs. a day. If there be headache and lumbar pain you may combine about 3 grs. of phenacetine in the dose. Treat the catarrhal element actively according to general principles.

We have now to consider the treatment of the graver forms of this disease. We must here, at once, institute the antifebrile regimé. The diet should be milk, beef tea, animal broths, etc., given at stated times. The feeding is very important in these cases, because there is a longer temperature curve and great physical depression. Give strychnine and alcohol, with quinine to support the system, avoiding depressants. Morphine for the pains. Treat the complications as you would if they were under other conditions. I want to call your attention to a few of the unusual features of the present epidemic. And first, it is to be noted that the temperature curve is unlike that met with in former epidemics, in some particulars. Thus, I have seen not a few cases that began with a temperature of 103° or even 104° F., which almost at once declined steadily to the normal, to remain so, the whole attack lasting 2 or 3 days. Apparently little or no local catarrhal conditions developed in these cases.

We have a temperature curve of influenza noted by DaCosta, which for a day or two is high, then a steep decline, a rise again to almost the former height, then following this an irregular temperature tending back to the normal. This is rather unusual. We have also a temperature which is much like that of typhoid fever. Now I find that in the cases, like the one that has just gone out, with a temperature chart resembling the typhoid curve, one or more complications present, such as lobar pneumonia, lobular pneumonia, enteritis, etc., which would explain the continuance of the high temperature and cause it to resemble typhoid.

The throat complications are numerous this year, including follicular and necrotic tonsillitis. We see in the present epidemic of influenza, suffocative attacks, and we also see a great number of cases of active bronchitis and superficial laryngitis. Aural troubles are also common, being secondary to the throat troubles.

Lobar pneumonia seems to be entirely independent of the bronchitis though very frequent. Lobular pneumonia is more frequently seen still. The latter complication is often preceded by an active form of congestion.

I would also call your attention to the nervous phenomena of the disease as compared with those seen during the epidemic that occurred two years ago. There is no doubt in my mind that we have more tendency to depression of spirit, more irritability of temper. We see during the present epidemic in a greater proportion of cases, a mild, and not rarely an active form of delirium. And again, I have noticed that convulsions occur. This was seen by me in two instances, and other physicians have met with about the same proportion of cases. Vertigo has been present in nearly all of my cases. In the present epidemic children were numbered among the victims from the first, while in the former, children were stricken down toward the close. Much more might be stated on this head, but as the hour has passed, time will not permit.

## COMMUNICATIONS.

### EPISCLERITIS.

By ARTHUR D. MANSFIELD, M. D.,

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Episcleritis is a very rare form of disease, seen only occasionally in our clinics, but when observed presents clear and distinct symptoms.

In most diseases of the eye the diagnosis is absolutely certain and very little, if any, doubt is expressed, and in this form of disease under consideration the diagnosis of scleritis is made upon the objective symptoms and not upon those of a subjective character. We see for ourselves what the trouble is and make the diagnosis perhaps without even asking the patient a single question.

The history of the case is usually one of some length of time in which more or less treatment has been tried, without any appreciable benefit, even perhaps failure and increase of the trouble, in which the pain continues increasing at times, then subsiding somewhat. Some redness and inflammation restricted in area to one of the quadrants of the globe and near the cornea, the inflammation not having the general appearance of ordinary conjunctival inflammations. Pain is experienced by the patient on pressure and there is more or less swelling. So much for the history of the case.

The diagnosis is easily made from the knowledge of the history. The patient has painful vision, photophobia, pain on pressure, when applied directly over the inflamed and swollen area.

The area of inflammation extends over a quarter or less of the superficial area of the eye, or may be located at a very small point, usually, however, it is scattered over a larger area. The inflammation may cause more or less œdema of the conjunctiva immediately over it. Suppuration very rarely occurs, at least I have never seen any case go on to suppuration. Vision is impaired in most of the cases to some extent; the disease is usually restricted to one eye ball; there is always a predisposition to subsequent attacks. It is seen usually in middle adult life between the ages twenty-five and thirty-five. My observations have shown me more cases in the right eye than in the left; however, I see no reason why either eye should be predisposed and hence attach no importance to the fact.

The differential diagnosis is to be made between episcleritis and scleritis, the two being indissolubly bound together, and in reality are only inflammations of contiguous tissues. The differential diagnosis is always difficult, and as there is no necessity of multiplicity of diagnoses the two may as well be considered as the same disease.

To an oculist it is hard to confound anything else with episcleritis, yet we are not all oculists, and to those who are not I make the following differential diagnosis. It may be possible to confound episcleritis with phlyctenular keratitis or phlyctenular conjunctivitis. The episcleritis presents a uniform redness as far as the area extends and seems to be an inflammation of a tissue covered by a healthy tissue, such as a thin mucous membrane like the conjunctiva. And such is the case—the sclera is inflamed and reddened, while the conjunctiva is comparatively speaking very healthy. In episcleritis we have severe pain on pressure, there is swelling and diffuse redness, and it usually occurs in adult life with a history of rheumatism.

In phlyctenular keratitis, the area of redness is localized, is a point to which blood vessels run and from which they ramify in all directions, the phlyctenule or small pustule is located on the edge of the cornea or on the corneal border of the conjunctiva; the phlyctenule is depressed at the top and exudes purulent matter.

The conjunctiva is affected, and the inflammation seems to be superficial, and not covered by any upper tissue, the same painful vision exists, and light is avoided, darkness being a relief to the eye. Like episcleritis the disease occurs in children and not in adults, and usually in children of a strumous diathesis. In phlyctenular keratitis, there is none of that pinkish congestion seen in keratitis (I mean the simple keratitis) which in reality is a congestion of the scleral vessels around the cornea which is so characteristic of keratitis and iritis. Pressure brings no pain in phlyctenular keratitis, though the patient may suffer pain locally.

These in brief are the main points of differential diagnosis between episcleritis and phlyctenular keratitis. There are other forms of disease which might be confounded with episcleritis.

*The Ætiology of Episcleritis*: It is a very well-known fact in general clinical medicine that the rheumatic poison has a peculiar liking for and tendency to invade fibrous tissue; we see this in the fact that rheumatism attacks regions mostly composed of fib-

rous tissues, such as the joints. We also know that the sclerotic coat of the eyeball is composed entirely of fibrous tissue, and I have often wondered why we do not see more of episcleritis than we do. Owing to the fact that rheumatism exists in so many cases, and is so severe in a majority, why does the inflammatory virus, if you will, not attack the sclera more often than it does? We see the migratory rheumatism going from joint to joint and having attacked them all still the eye escapes. It is one of those unexplainable occurrences in medicine which we often see and are unable to give any satisfactory explanation.

The causation of the disease then is an infiltration of the fibrous tissue of the sclera, the rheumatic poison setting up an inflammation there very analogous to that in the fibrous tissue of a joint, with the impairment of the function of the part.

The *prognosis* should be given with considerable reservation, though with certainty as to ultimate recovery. The recovery is slow always. As to the repairment of vision, you can always state that vision will be as good afterward as before. In hospital practice where the cases can be watched more closely and longer than in private practice, we have the best results because the patients become less impatient, and the treatment can be instituted with greater precision. It is in the hospital that the methods of treatment become known, and where new remedies can be tried, prognoses modified, and diagnoses learned.

Many remedies are tried and various methods employed. I will endeavor to give summarily and succinctly the experience at the hospital. We have tried the galvanocautery with varying results. Sometimes we have thought good followed, at other times the results have been very indifferent. Astringents externally give very little benefit. Massage has been found to do the most good, accompanied by the internal administration of anti-rheumatic treatment, such as the salicylates, alkaline treatment, salicylate of quinine, potass. iodide, and similar rheumatic treatment. Our results from massage, the salve being the yellow oxide of mercury, grains three, to the drachm, of lanolin or vaseline, have been very gratifying indeed.

The duration of the disease is very variable, so that no definite duration can be stated. My method of treatment is, generally, to use massage at least twice daily, morning and evening, and if this cause too much inflammation and irritation, then lessen the massage to once daily, preferably in the evening before retiring; this external treatment must be accompanied by bold anti-rheumatic treatment, pushing it as far as possible. Episcleritis when so treated will yield as readily as can be expected from a disease so obstinate as the one under consideration.

129 South Broadway.

## THE CURE OF THE ALCOHOL DISEASE, FROM A PHYSIOLOGICAL POINT OF VIEW.

By A. ENFIELD, M.D.,
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The day of medical theories which do not have the basis of established facts to justify them belongs to the past. It has taken ages of observation and investigation by the greatest intellects of the profession to elevate the science of medicine to the high position it now occupies. We live in an age of light and knowledge; an age in which old isms, theories, and fallacies are fast disappearing before the sweeping progress of this century. The past decade has given us the beginning of a new epoch in the science of life. Medical science is now called upon to defend our bodies from the parasites which prey upon us from without, and physiological and chemical researches have taught us the therapeutic application of drugs in the cure of dipsomania and kindred diseases.

The power of self-regeneration is one of the great distinctive properties belonging to all organized living bodies; but the moment we commence to live we begin to die. Molecular change may be increased or retarded by various foods and drugs taken into the system at stated periods. We apply the term hunger to that peculiar want felt by the human system for food, a sensation (when not too long prolonged) by no means disagreeable, and one which is often excited by the sight or smell of a savory dish. It is true the taking of food is influenced in some degree by exercise and habit, as well as by the sense of hunger, and if our systems are not supplied at regular intervals by this nourishment, the sensation of hunger becomes so great that we suffer pain and distress. All the elements necessary to nutrition (except oxygen and light) can be taken into the system by the mouth, and if it were not for this there comes a time in the history of every organized body when the tissues fail to appropriate sufficient new material to repair the waste, we would continue to live

Death is, therefore, a physiological necessity. Therefore, there is no such thing as true Euthanasia. But, it is the duty of the physician to secure for man such good health as shall bear him in activity and happiness onward in his course to the goal. Good health and happiness can be secured by living in obedience to the laws of health. When the medical profession succeed in teaching to the world how to live in a proximate, physiological normal condition, then they will have reached the consummation of their calling.

Fifty years ago there was not a Medical College in Europe or America that had a special chair of Neurology, whereas, to-day there is not a school that has not at least one such chair, and some schools have two and even three professors who are giving their undivided time and attention to discoveries and advancements in this important branch of medical science. It is therefore gratifying to the American student of scientific medicine to note the amazing progress that has recently been made in the discovery and cure of nervous diseases, especially by American Neurologists. It was our beloved Rush, who, a century ago, stood as the great pioneer (in advance of all the world) to describe and demonstrate the future of this branch of medical science. It was through men like Rush, Pinell, Brown-Sequard, and others, we learned that insanity is a disease, and not the devil in man, as was generally supposed prior to their time. So that to-day, while medicine is advancing all along the line, in no other department has there been such advancement as in the discovery and treatment of nervous diseases. Advancement has been so rapid in this special department of medicine, that some writers claim that all diseased manifestations are but the result of nervous shock.

Vesalius took his own life in his hands when he was bold enough to sharpen his scalpel for the first dissection on the human body. Galen followed and taught us that the arteries contained blood, and not air, and Harvey showed us how that blood circulated. Jenner, Pasteur, and Koch have been bold enough to transfuse the very elements of chemistry into our blood in order to kill the myriads of germs that infest our organisms and produce disease and death.

By the aid of physiology and chemistry we have used the elements around us to cure disease and prolong life. The great labors of the past are but now beginning to bear their fruits. Alcoholic neuritis is no longer considered a habit, but a disease; as much so, indeed, as insanity.

The old fogy element of the profession may cry out against this new departure in the treatment of a disease; but it cannot stem the tide of scientific progress when the world can see the results and witness the benefits to mankind. The Secum-Lumen, the great light, will open the eyes (of the old fogies) as the noon-day sun opened the eyes of the scoffers of Jenner. If one poor soul can be saved, who dare cry against the cure of a disease that cuts down youth in his vigor, manhood in his glory and strength, and age in his weakness; a disease that has produced more misery, sickness, and death than all other diseases combined?

It is an insult to medical science to say that all the brave and good men who have killed themselves with alcohol and opium did so just from habit. Tell me that all the men of genius whose lives have been wrecked and ruined by these drugs were led to their use by mere accident? Impossible. These men fought like heroes against their disease; and for these diseases they were not responsible.

The day has come in the fullness of time when we can say that this disease that has destroyed so many shall destroy no more. Thousands of human beings are being rescued from the destroying influence of these diseases, and thousands and tens of thousands are yet to be saved from an untimely death. Every new advancement in the science of medicine is met with a storm of opposition. Dipsomania must be recognized as a disease, and not as a habit. Until recently the medical profession have neglected to examine this subject carefully from a physical point of view. They must examine this subject as they examine any other ailment if they wish to reach a satisfactory conclusion.

It is not the intention of this article to begin a controversy with those who honestly believe that inebriety is the result of habit alone. Inebriety is no more due to habit, vice, and sin, than is insanity. If inebriety is a disease, then its cure rests with the physician; if it is wholly a sin, and the man is entirely responsible for his appetite, then his treatment and salvation must come from those who claim it is a habit. A Christian will be a better, a brighter, and a happier Christian if we can remove this appetite for stimulants and give him a healthy stomach. An ounce of cure is worth a pound of prevention, if applied at the proper time. Thousands have been crying for help from this dreadful disease, while theorists have been talking, and preaching, and splitting hairs as to whether it is a moral or physical evil. The word habit, like the word malaria,

is a convenient word with which to explain something we know nothing about. Conversion, change of heart, and the grace of God are great moral helps, but they cannot cure a diseased nervous system, nor a depraved stomach. The moral side of intemperance has been proclaimed for ages, and yet statistics show that inebriety is still on the increase.

On this subject the medical profession have remained silent entirely too long, and have allowed moralists to advance their own views in the matter without any scientific examination of its cause, its nature, its character, or its curability. We must admit that the moral agitation of the subject has done much good, but still there is something wanting. The removal of alcohol does not remove the craving, but rather increases the appetite for it. If we cannot cure the inebriate by the application of drugs scientifically applied, then we shall never be able to cure him by forced abstinence. Public opinion may deny this, and opposition may come from every superstitious person in the land, but that will not frighten the conscientious and progressive physician who has science, experience, and results to support him. He must go patiently on, and look beyond the present opposition of the incredulous and sceptical public, until he has worked out the physiological and pathological condition of the inebriate and restored him to health.

Man is a complex animal, full of variations, and easily influenced by any change in his nerve-centres. His call for stimulants arises from a loss of nutrition to some part of the central system, just as the call for food arises from the same cause. Therefore, it is impossible to cure this morbid craving, which has its seat in the brain, without first removing the cause by appropriate medication. The inebriate may be anxious to quit the use of the stimulant, but the moment he makes the attempt his diseased stomach and brain give notice that they must have something to nourish them.

It is not within the scope of this short article to analyze and examine the many predisposing causes of this disease, such as: heredity and non-heredity, occupation, etc., or we might present many facts and data, that would help to determine this question outside of any personal feelings or opinions we may entertain. There is no subject that should receive more interest or more attention from the profession than this subject of inebriety; and yet in the past we have allowed the laity to do all the thinking, writing and legislating on the subject. It is time we call a halt. The physician is certainly better qualified to investigate the subject, and to pass his judgment on it than those who have never examined it from a scientific point of view. While I have myself devoted years to the special study and treatment of this disease, examined the different systems of treatment (the old and the new), seen successes and failures (under restraint and non-restraint) treated with drugs and without drugs, yet I feel that we have but commenced the study of a disease whose future is full of important information, and of which there is yet much to be learned. We should never allow ourselves to be carried away by the enthusiasm which naturally follows success, nor be discouraged by failures.

The same general principles apply in the treatment of this disease that apply in all chronic nevous diseases. Physical laws and forces are all the same in all individuals. The system broken down by long years of dissipation cannot be relieved by any one drug or combination of drugs alone, but by building up the whole body by special diet, baths, exercise, electricity and good hygienic surroundings. In my hands a combination of drugs has proved most beneficial. Each and every case must have special treatment according to the symptoms manifest. No doubt chloride of gold possesses wonderful alterative properties, and when properly and systematically given in combination with strychnia, atropia, coca, quinine, sulphonal and codeia, they have a tendency to change the habits of the system, and remove the diseased condition of the nerve-centres and allow nature to return to a normal condition. These powerful drugs, when given for a long time, so profoundly influence and build up the nervous system, that the inebriate feels strong and well, and gradually acquires as much repugnance for stimulants as he before had an appetite for them. The treatment breaks or removes the cause of the disease and the inebriate starts in a new career of life.

Of course he may relapse as he may from any other nervous disease. Anything that tends to exhaust the brain, or lower the vital forces, predisposes to a return of the disease.

The individual should live a life free from excitement, annoyance and worry, eat wholesome and substantial food and be constantly under the observation of a physician. Physicians who are familiar with the modern treatment of inebriety do not condemn it; they rightfully refuse to endorse nostrums of which they know nothing. The general practitioner has not the time to devote to the treatment of

these cases. He might as well attempt to treat all his cases of insanity.

Specialists have explored the grounds, investigated the disease and formulated the treatment, and are therefore more competent to handle such cases successfully. Nor is it advisable for the patient to treat himself. Most drugs that are of any value in this disease would prove dangerous in his hands. Besides, the most of the treatment must be given hypodermically, which an unskilled person cannot do.

My reason for dwelling upon the neurological and physiological aspect of this disease is to call the attention of those outside of the medical profession to the great advancements that have been made in this special department of the healing art. The world is too apt to look with disfavor upon any new discovery that is invisible and incomprehensive to the common mind.

They grow wild over the graphophone, the telephone or electric car, but fail to realize the subtle and invisible agent that science is using to cure man. In conclusion we may then state with perfect confidence, that inebriety is a disease and not a habit; and in order to intelligently treat it we must study the nature and character of the disease as it manifests itself in different individuals. We must approach the subject from the physical and not the moral side of case. We must discard any preconceived notions and theories not based upon facts.

The public should not expect them to prove infallible. The best that can be expected of any remedy, is that it will cure the majority of all the patients to whom it is properly administered, and this is just what this modern treatment has done in dipsomania. The deliverance of humanity from this terrible disease will mark a new epoch in the science of medicine.

Facts are the basis of an infinite wisdom that never err. The discovery of every new truth in medical science marks its advancement over past ages. New discoveries spring up with such rapidity, that in the busy routine of professional life we have scarcely time to sift, weigh and analyze their value for good or evil. By the selfishness of our natures we are more prone to condemn and criticise, than to praise.

President Garfield once remarked, that he was always struck with awe when standing near the ocean, and seeing the waves lashed into fury and tossed into spray. Its grandeur would move the soul of the dullest man. But it is not from these billows, but the calm surface of the sea from which all heights and depths, lengths and widths are measured And so in the conflicts of science, like the waves of the ocean, one follows the other and after a moment's existence, each one in turn is overwhelmed by the one that follows and both are merged into the past. But human thought differs from the waves of the ocean in this: That we advance and grow in wisdom and knowledge, and that an occasional wave is thrown so far out that it will never recede, so that the eyes of the whole world can behold the progress that has been made to save and prolong human life.

The medical profession is advancing. This century has had its Virchow, Pasteur, Lister, Esmarch, Tait, Billroth, Paget, Koch, Sims, Morton, McDowell, Gross, Pancoast and Agnew.

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## TWO SUCCESSFUL CASES OF THE CONSERVATIVE CÆSAREAN SECTION.*

By CHAS. JEWETT, M. D.,
BROOKLYN, N. Y.

CASE 1. English woman, 32 years of age, 4 feet, 6 inches in height. Health fair with the exception of a chronic nephritis. Pelvis kyphotic. Inlet slightly contracted. Outlet 2¾ inches in the pubo-coccygeal, 2¼ inches in the bisischial diameter. Admitted to the Long Island College Hospital after being several hours in labor. Os externum dilated to the size of a half dollar, and membranes ruptured. Operation Dec. 2, 1891. Pulse 90. A large thin-walled rubber tube used as a provisional uterine ligature. Placental seat under the uterine incision. Hand passes over the left edge of the placenta, and through the membranes. Head extracted with difficulty, and only after relaxing the grasp of the constrictor. Cord clamped at two points with catch forceps and cut between them. Child alive and respiration promptly established. No eventration of the uterus. Placenta and membranes separated by hand, and uterine cavity left undisturbed. Uterus closed with 12 deep silk sutures. Symperitoneal suture of catgut. Almost no handling and no special cleansing of the peritoneum. Abdomen closed with ten silk sutures. Blood loss no greater than in ordinary labor. Tonicity of the uterine muscles apparently unimpaired by the cervical ligature. Good recovery with no sign of sepsis. Abdominal sutures removed on the tenth day. Uterine involution somewhat tardy.

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* Abstract of paper read before Medical Society, State of New York, Feb. 2, 1892.

Case 2. Was a German immigrant, 20 years of age. She had for a long time been subject to hysterical paroxysms occasionally ending in convulsions and semicoma. Was in bad condition from inanition. Was the subject of a slight broncho-pneumonia at the time of operation, and also of syphilis in the second stage. A most remarkable feature of this case was her temperature record. The thermometer several times before operation, registered 107° F., and once 110°. At the beginning of the operation her temperature was 108⅘° F. The woman was of slender figure, 4 feet 8½ inches in height, and her pelvis extremely flattened. True conjugate 2½ inches. Pubo-coccygeal and bisischial diameters each 2½ inches. She fell into labor shortly after the sixth month of gestation. Operation about ten hours after the first pains. Waters had drained away but the cervix would barely admit the examining finger. Section complicated with troublesome protrusion of intestines owing to tympanites. Nearly complete escape of the liquor amnii and placenta prævia cæserana. Large thin-walled rubber tube used as a uterine ligature as in the previous case. Placenta separated as before. Child alive and breathing but not viable. Uterus lifted out of the abdomen. Membranes separated with difficulty. Uterus closed with ten deep sutures in 14 minutes from beginning of operation. Decidua not included in the sutures. Symperitoneal sutures of silk. No flushing and little cleansing of the peritoneum. Abdominal incision closed with ten silk sutures. Temperature at close of operation 98⅘° F. Pulse 90—lower than at the beginning. Some abdominal distension on the second day which was promptly and permanently relieved by free evacuations of the bowels with salines. The temperature soon resumed its customary oscillations, but there was no bad symptoms attributable to the abdominal section, and the patient made a satisfactory recovery.

The writer mentions as the most important points in the technique of Cæsarean section, asepsis, the secure closure of the uterine wound by the typical Sanger suture, with silk, the avoidance of all scrubbing and the use of antiseptics of any kind in the aseptic uterine cavity, and the avoidance of irrigation or much sponging of the peritoneum. The resort to saline cathartics soon after the first expulsion of flatus, the writer considers a valuable measure. The best time for operating in his opinion is an appointed time immediately before labor. The simplicity of the technique, and the comparatively favorable condition of the patient in timely operations he thinks entitles us to expect in Cæsarean delivery quite equal to or better than the best records of laparotomy in disease.

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## A CASE OF LATENT NEPHRITIS WITH SUPPRESSION OF THE URINE IN CHILDREN.

By G. D. THOMAS, M. D.,
CHICORA, PA.

In The Medical and Surgical Reporter for Nov. 21, 1891, appears an article from the pen of Dr. Alexis M. Léon on "Latent Nephritis with Suppression of Urine in Children." The infrequency of the occurrence of this disease is noted in this article, and on account of its rarity I take this opportunity of adding another to the rported cases:

Eddie E——, aged eight years (taken sick on his eighth birthday). Family history—Father and mother both alive and healthy. Two brothers, two sisters, all healthy. Previous history—Had had no serious illness up to the present attack, had passed through measles and chickenpox (?) without complications; two years before had scarlet fever, which was considered a light attack, speedy recovery without known sequelæ. For a year he had expectorated a great deal. On being corrected for the habit, said "he could not help it, as it came in his mouth." Being a neighbor's child I had noticed his waxy appearance for a few months before his attack. The parents can remember now that he was less active lately than in former years, and that he could not stand as much cold as usual. Was constantly in cool weather seeking the fire. Had never observed any œdema or dropsy before attack. Has had no cold, nor has he been particularly exposed more than other school children.

Present history—Saw the patient for the first time Tuesday, Dec. 8, at 9 a. m. Had vomited some through the night and complained of head-ache. Temp. 99°. Pulse 56 and compressible. Slight œdema of eyelids and face; none at ankles or elsewhere. Tongue brownish-white coat. Prescribed a calomel purge and made request for morning urine to complete diagnosis.

Patient seemingly much better after evacuations, playing and singing with the other children during the evening.

Wednesday, 8 a. m. Patient not so well this morning. Has vomited several times through the night. Head-ache continues. Still walking around but is apathetic, and

inclines to be on lounge. Temp. 99°, pulse 58. Bowels have moved five times. Œdema of face increased; some anasarca on dorsum of feet. The urine voided in the morning was obtained and amounted to about one ounce. On examination by heat it coagulated in a mass. Microscopically, a few casts (hyaline). Amount was so small that specific gravity was not taken. Ordered the patient to bed and began active treatment, the object of which was to sustain him and have the skin and bowels perform the function of the kidneys. Prescribed infusion of digitalis with acetate of potassium, and sulphate of magnesia. Diaphoresis promptly obtained. Œdema of face rapidly increased, nearly closing eyes by 6 p. m. Some convulsive twitchings. Temp., now (6 p. m.) 103°, pulse 74. Suppression of urine complete. Pilocarpine and salicylate of sodium added to the treatment. Bowels acting every two or three hours. Drinks freely of water, milk, and lemonade.

Thursday, 8 a. m. Patient passed a good night. Strength still good. Temp. 98.5°, pulse 74. Œdema much less in face. Œdema in other parts increased, especially in scrotum.

Thursday, 6 p.m. Symptoms little changed. One of consulting physicians catheterized patient, obtaining seven or eight drops of urine. Suppression still complete. Hot, wet pack ordered to aid in diaphoresis. Comes out with good pulse, and strength maintained.

Friday, 8 a. m. No change. Anuria complete. No convulsions. Two more hot, wet packs, the patient resisting, they were discontinued; gave good results however.

Saturday, Dec. 12. Symptoms nearly the same. Temperature slightly sub-normal, 97.9°. Small doses of pilocarpine ordered.

Sunday, 8 a. m. Suppression still complete. Bowels and skin still active. Pulse 98, temp. 98.2°. Losing strength. Has slept several hours through the night. Continues to take nourishment. More œdema on eyelids.

Sunday, 6 p. m. Since 4 p. m. patient has been rapidly failing. Respiration 44, pulse variable, 90 to 110, weak and thready. Temperature 99°. Gradually sinks, the end coming at 11 p. m., by asthenia.

Remarks: The points of interest in this case are: (*a*) the long and continued suppression; (*b*) the absence of convulsions; (*c*) the idopathic (?) nature of attack.

During the time of treatment from Tuesday morning until the following Sunday night, suppression was so nearly complete that the amount was counted by drops, and the sum total would not have exceeded a drachm and a half. The absence of convulsions is to be considered when so long a time elapsed with anuria complete. During the first twenty-four hours there were some convulsive twitchings of muscles of the face with grating of teeth. This was also the case during the last twenty-four hours of his life. Death was dreaded and expected from the start, and the family forewarned as early as our Wednesday morning visit. The latent nature of the disease is worthy of note. In studying the previous history of the case, the attack of scarlet fever seems to be the only exciting cause obtainable. And from the family as well as the then family physician, comes the statement that the attack seemed very light, and a good recovery promptly obtained. The attack apparently came unprovoked, but was none the less exaggerated in its manifestations.

## SOCIETY REPORTS.

### NEW YORK ACADEMY OF MEDICINE.

### SECTION ON PÆDIATRICS.

*Stated Meeting, Feb. 11, 1892.*

The greater part of the evening was devoted to a discussion on the therapeutics of DIPHTHERIA. It was opened by Dr. Joseph E. Winters, who confined his remarks to a consideration of "The Best Disinfectant and Best Apparatus for Use in the Mouth and Nose," and exhibited the apparatus which he employed.

He assumed that all were agreed that the disease is primarily local, and due to the Klebs-Loeffler bacillus. At no time in the course of the disease do these bacilli invade the blood; they are confined to the superficial parts in the immediate neighborhood of the membranous exudation. The tonsils, naso-pharynx and nasal passages are in most cases the initial points, and when it is remembered that these bacilli, when brought in contact with a healthy mucous membrane, will not provoke diphtheria, the importance of avoiding the application of all irritating substances to the nose and throat becomes at once apparent. Such treatment by irritating applications is positively dangerous, as the adjacent tissues are likely to become fresh points of infection. If a very small quantity of boric acid or of carbolic acid be added to a culture medium, the growth of the Loeffler bacillus will be materially hindered. This shows that it is needless to use irritating

substances with the idea that they are necessary in order to successfully cope with the disease. The local treatment should be such as will admit of the patient maintaining the recumbent posture at all times, and the speaker favored the use, for a child, of a small crib, with one side capable of being let down to allow the attendant proper access to the patient. The pillow and bedding should be protected by rubber sheeting, so arranged as to carry off the irrigating fluid into a proper receptacle. He advised the use of a Davidson syringe with a nasal tip, and a saturated solution of boric acid, or a ten per cent. solution of peroxide of hydrogen, from half to one pint of the fluid being required at a time. If the irrigation be performed through the mouth, much of the debris is liable to be swallowed, while if it be done through the nose, there is not only less resistance, but the fluid flows out either through the other nostril or through the mouth. Occasionally, in severe cases, it becomes necessary to irrigate through the mouth, and under these circumstances he favored attaching a rubber tube or soft catheter to the tip of the syringe, and passing it along the side of the mouth to the last molar tooth. In cases of ordinary severity, these irrigations, whether through the nose or through the mouth, should be repeated about every two hours; where there is much obstruction, or fetor, it should be done even more frequently. The first syringing should always be performed by the physician himself, no matter how experienced the nurse may be. After the first time, there will usually be but very little resistance on the part of the patient, and almost no exhaustion, in which respect this method compares most favorably with all the other methods of local treatment commonly employed.

External applications form an essential part of the local treatment of diphtheria, and among these steam was one of the most generally useful. The Arnold Steam Sterilizer with the croup kettle attachment was a good croup kettle, which was more than could be said for most of the others in the market. All croup kettles should be furnished with two or three feet of large rubber hose, which may be slipped over the spout of the kettle. In order to be efficient, the steam must be brought quite near to the little patients while they are asleep, and in order to do this, and follow the frequent changes of position of the child in the crib, it is absolutely necessary that a flexible tube be attached to the kettle. He usually placed in the water in the steam kettle two drachms of oil of eucalyptus and two ounces of turpentine. He preferred, as a source of heat, a gas stove to a spirit lamp.

There was another external application which he had found very useful, and the use of which he had advocated before this section some six or seven years ago. It was the inhalation of the fumes from burning sulphur, or sulphurous acid gas. He had found nothing which had given so much relief to the inflammatory swelling and to the dryness of the throat, and the pain on swallowing; it was far more efficient for this purpose than either steam or cocaine. It was quite remarkable that when the atmosphere of the sick room became so laden with the sulphurous acid as to make it absolutely unbearable to the attendants, the patient experienced the most relief from it. He had noted this in his own case, when sick with diphtheria, yet since his recovery he finds that his throat is as sensitive to this gas as are the throats of the attendants. He had observed this in many instances, and Dr. Van Wagnan, of Newark, had noted the same effect upon himself. His custom was to burn a sulphur candle in an adjoining room, or even in the sick chamber itself. The sulphurous acid gas promotes secretion, and seems to favor the exfoliation of the diphtheritic membrane.

Dr. J. Lewis Smith remarked that Dr. Winters used the peroxide of hydrogen in greater dilution than was the custom with a great many physicians, and did not seem to make any distinction between the solution for the nares and that for the mouth. For the fauces, Marchand's peroxide of hydrogen solution, one part to two of water, he thought about the strength, and for the nares, one part to five or six of water.

Dr. L. Emmett Holt said that he had tried a ten per cent. solution, the strength recommended by Dr. Winters, on his own nose, and had been astonished at the amount of irritation which even this dilute solution produced.

Dr. H. D. Chapin followed with a paper on "Quarantine and Disinfection in Limited Apartments; the Precautions for the other Members of the Family." He said that in most cases the end room or parlor should be selected, and all superfluous articles removed. It was a common custom in the tenement houses for the patient to be placed on a sofa, but this should be carefully avoided, a cot being selected instead of either bed or sofa. The attendant should have a wrapper to wear in the sick room only, and the secretions should be collected on rags and then burned.

The Board of Health furnished a disinfectant solution consisting of chloride of zinc, four ounces, and chloride of sodium, two ounces to the gallon of water; this was useful for soaking the linen in before boiling it in the laundry. After the termination of the case, quilts, pillows and comforters should be thoroughly shaken on the roof, and exposed for many hours to fresh air and sunlight; the floor, walls and ceiling should be washed with a 1:20 solution of carbolic acid, or a 1:1000 solution of corrosive sublimate, and the same fluids might be used to flush out the sinks and water-closets. If the walls were papered, they should be rubbed with stale bread-crumb. He still believed that sulphur fumigation was useful; possibly the thorough airing which must necessarily follow may not be an unimportant factor. If the municipal authorities could be induced to establish stations or places of refuge for the well children in families stricken with the disease, great good would certainly result.

Dr. Allen said that in regard to the precautions to be taken by the physician himself to prevent the spread of the disease, he wished to direct attention to a very useful contrivance which he had seen in use in Europe, but which did not seem to be known here. It was simply the interposition of a glass plate between the physician's face and the patient while local applications or examinations were being made. He had more than once seen this screen intercept particles of diphtheritic membrane and secretions, which otherwise would have lodged on the physician's face or beard, and might have been the means of carrying the disease to his own family.

Dr. A. Seibert said that he covered himself with two aprons, and thoroughly washed his hands and arms, and if necessary his face with Labarraque's solution, before leaving the sick room. He believed that many cases of diphtheria were contracted by children crawling around on an infected carpet, and carrying the contagion on their fingers to their mouths.

Dr. Fischer referred to an investigation now in progress, which seemed to show that the sewer pipes had much to do with spreading diphtheria to different parts of the house.

Dr. L. Emmett Holt took up the subject of feeding, and demonstrated a method of forced feeding. He thought the most common mistake was to overdo the matter of feeding and stimulation, so that when a crisis did arise, but little could be done. Ice cream and wine jellies were often swallowed, but the former very often disagreed with the stomach, and the latter were often open to the same objection, and moreover contained but little nutriment. Milk should be selected, and might be given either hot or cold, according to individual preference, properly diluted to suit the age of the child. Mutton broth, beef juice, wine whey, oatmeal and barley gruels, and junket, cold and flavored with a little wine, were all valuable additions to the dietary. Kumyss, if taken well, is very valuable, but unfortunately few children cared to drink it in diphtheria.

Stimulants should usually not be mixed with the food, as it often causes a disgust for the food, nor is it desirable to give it till the heart shows some sign of weakness. A child can rarely digest a meal in less than two hours, hence nothing but predigested foods should be given oftener than this. The quantity of food should be somewhat less than the same child would ordinarily digest well in health. When stimulants are indicated, they may be pushed until the desired effect is reached, the only limit being the tolerance of the stomach. They are best given in small and frequently repeated doses, hence, it is better to prescribe the quantity to be given in the twenty-four hours, and allow the nurse to use her judgment as to how she can best give this quantity in the required time.

In many cases where there is much sepsis, or great prostration, all nourishment and stimulants will be refused, and neither coaxing nor commands will avail. The rectum in young children is usually so irritable that it cannot be depended upon for more than two or three nutrient enemata at the most, hence one is forced to feed by the mouth or nose, the former was usually preferable unless there was a great deal of resistance. Completely peptonized milk or kumyss should be given in this way, along with the prescribed quantity of stimulants, every four hours, and this will be sufficient to maintain proper nutrition. The apparatus consists of a glass funnel, a piece of rubber tubing, and a soft rubber catheter. The red catheters made by Whitall, Tatum & Co., he preferred to Tiemann's soft catheters, simply because they were a little stiffer.

Dr. Abraham Jacobi spoke of "the Constitutional Treatment." He renewed his advocacy of corrosive sublimate, and stated that babies would take from one-fourth to one-half of a grain of this drug in twenty-four hours, if given in small doses, *largely diluted*, without having stomatitis or enteritis. If diarrhœa should occur, a few doses of paregoric will speedily control it. The failures

with this treatment usually occurred from not using the bichloride sufficiently diluted; one part in eight or ten thousand of water is the proper dilution. He also spoke of the value of calomel inhalations in pseudo-membranous croup when repeated every three hours, keeping the patient in a closed tent for about five minutes, and allowing about ten minutes for the evaporation of ten grains of calomel.

The pulse should be carefully watched in diphtheria, remembering that a rise of ten beats may mean that heart failure is imminent. It is important to remember that the ordinary doses laid down in the books will not answer in the face of sepsis from diphtheria. For instance, quite recently a baby was given one minim of Squibb's fluid extract of digitalis every hour until thirty-three doses had been given, before the drug began to show its effect on the heart; then the digitalis was given only once every three or four hours. When heart failure threatens, stomach absorption is often very imperfect, and subcutaneous administration of stimulants must be resorted to. Then, one part of camphor dissolved in four or five parts of sweet almond oil serves a good purpose as a cardiac stimulant which can be readily and painlessly injected under the skin. The salicylate or soda-benzoate of caffein dissolves in two parts of water, and is therefore eligible for subcutaneous administration.

Dr. A. Seibert then exhibited the syringe which he employs for making what he terms "sub-membranous injections" in diphtheria, a method which he had been using with apparent success for the last eighteen months. He injected a much larger preparation of chlorine water than the officinal one, and of course, made use of the usual method of constitutional treatment in conjunction with this new method of local treatment.

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### THE DROP BY DROP METHOD OF ADMINISTERING CHLOROFORM.

Two communications appear by Brandt (*Centralblatt f. Chirurgie*, No. 47, 1891) in which especial stress is laid upon this method of administering chloroform. Zuckerhandl claims that the method has been extensively employed in Dillel's clinic at the Vienna General Hospital with excellent results. Brandt states that Lauenstein, in the Sailors' Hospital at Hamburg, has used the same method for six years without a single accident occurring in consequence of the use of this anæsthetic agent. Only in rare cases is morphia used with chloroform anæsthesia.

## SELECTED FORMULÆ.

### FOR SORE THROAT.

℞ Cocainæ hydrochlorat. ..... gr. viij.
Acid. carbolici ..... 3 j.
Glycerini ..... f 3 iv.
Aquæ rosæ ..... ad f 3 xij.
M. Sig. To be diluted with an equal quantity of water, and used alternately as a spray and gargle.

### CATARRH, NASAL.

℞ Sodii chloridi ..... 3 i.
Glycerinæ ..... 3 iv.
Aq. rosæ ..... oz. i.
Aq. dest. ..... q. s. O. i
Acidi carbolici ..... gtts. v.
M. Sig. Snuff up nose several times daily.

or,

℞ Tannin glycerol ..... 3 i
Glycerinæ ..... 3 iii.
Acidi carbolici ..... gtts. iii.
Aquæ rosæ ..... 3 ii.
Aquæ dest. ..... 3 ii.
M Sig. Use with atomizer.

or,

℞ Potass. bichromat ..... gr. i to x.
Aquæ rosæ ..... 3 iv.
M. Sig. Local spray.

### CASCARA SAGRADA AS A PURGATIVE IN CHILDREN.

This drug has been found to be the most reliable purgative in infants and children. It may be prescribed as follows (*Lo Sperimentale*, No. 23, 1891):

℞ Tr. cascara sagrada, } ..... ää grammes 10.
Simple syrup, }
From one-half to a coffee-spoonful, according to the age of the children.

### WHOOPING COUGH.

Dr. Galvagno (*Lo Sperimentale*, No. 23, 1891) proposes the following formulæ:

℞ Distilled water ..... grammes 100.
Resorcin, } ..... ää gramme 1.
Antipyrin, }
Muriatic acid ..... gtts. 10.
Simple syrup ..... grammes 30.

℞ Gum arabic solution ..... grammes 100.
Resorcin, } ..... ää gramme 1.
Antipyrin, }
Syrup of pine tar ..... grammes 30.
Three to five tablespoonfuls a day.

### PALATABLE QUININE SOLUTION.
(LÜTZ.)

Quinine sulphate ..... gramme 0.05.
Sulphuric acid. dilute ..... " 0.05.
Sol. saccharin, saturated ..... " 1.00.
Water ..... grammes 9.00.
Spirit of peppermint ..... gtt. 5.

### CHRONIC DIARRHŒA WITH INTESTINAL FERMENTATION.

Dr. Eichler (*La Cronaca Medica*, September, 1891) uses the following:

℞ Salol ..... grammes 3.
Ol. ricini ..... " 15.
Symp. rhei ..... " 30.
Aq. cinnamon ..... " 120.
Gum arabic, q. s.
A large spoonful eve hour 1 t laxative acts.

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## LEADING ARTICLE.

### RECENT INVESTIGATIONS REGARDING THE ÆTIOLOGY AND TOXICOLOGY OF ASIATIC CHOLERA.

With the discovery of the comma bacillus in Asiatic cholera by Koch in 1884, the investigations relative to the ætiology of this disease assumed a new phase. All methodically schooled investigators were forced to the conclusion that the comma bacillus only was found in cases of Asiatic cholera, and were, therefore, necessarily led to the acknowledgment that this bacillus was the exciting cause of the disease. Only a few investigators claimed that their appearance was due to a preëxisting infection of the disease, and that they were secondary to, and not the cause of the malady.

This endeavor, by means of an illogical train of thoughts, to modify the brilliant discovery of Koch, was shattered by the logic of potent facts. Klein and Lewis who went to India with the idea of overthrowing this theory, found that even there the conservative English physicians had to a large measure embraced the parasite theory as one long in accordance with their views resulting from actual experience, and so the researches of these two did little but strengthen Koch's theory.

The most recent investigations in this domain have been those of Dr. D. D. Cunningham, of India, who, armed with scientific methods and apparently good arguments, has endeavored to destroy the groundwork of our present conception of the ætiology of Asiatic cholera. Even Cunningham cannot and does not deny that he has found Koch's comma bacillus only in cases of Asiatic cholera, and considers them, therefore, of great diagnostic value. He, however, questions their ætiological importance, and returns to the already rather hackneyed theory that these bacilli are developed under the influence of some unknown choleraic cause. His main arguments against the ætiological importance of the comma bacillus are as follows:

1. That in the positive cases of cholera, in

which he found the comma bacillus, he also found nine other germs, not exactly similar to Koch's bacillus, which he designates as various "species" of the comma bacillus.

2. That he occasionally in one and the same case found as many as three of these so-called species.

3. That in a few typical cases of Asiatic cholera he found no comma bacilli.

These different "species" he has succeeded in obtaining cultures of.

In the determination of Koch's species, Dr. Cunningham has only been guided by Dr. Koch's descriptions of the bacillus. All those bacilli which did not appear precisely as Koch had described them were dubbed as different species. Koch, however, never asserted that the forms of the comma bacillus described by him were the only ones found in Asiatic cholera, but described those forms occurring most frequently as the typical forms, leaving the possibility for a slight variance in shape of form always open.

To base so important a theory on a slight variance in the shape or form of a bacillus, is, to say the least, a procedure based on grounds that cannot be regarded as strictly scientific. Such slight variations are common in a large number of microörganisms—we need only remind our readers of the varied forms of the micrococcus prodigiosus. This Cunningham seems to have entirely overlooked in his work, classing all such bacilli as varied in any detail from Koch's description of the typical comma bacillus as another bacillus or "species."

If, therefore, in Asiatic cholera a bacillus is found which does not exactly coincide with Koch's description of the comma bacillus, it must be proven beyond all doubt that the bacillus is really another "species" or only a modification of the comma bacillus. Denecke, Finkler-Prior, and Gamaleïa have all found modifications of the comma bacillus, and recognized them as such. Buchner, Gruber, Zaeslein, and Ferdinand Hueppe have all discovered during the past few years modifications of the comma bacillus, which have been proven to be "nutritive modifications" of the same bacillus, that is to say, that the modifications depended upon the nutritive element upon which they were cultured. Most interesting in this connection is the recent work of Dr. Ferdinand Hueppe and his assistants Drs. Wood and Scholl, a report of which appears in the *Deutsche Medicinische Wochenschrift* of a recent date, and to which this article is indebted for many data and quotations.

Hueppe has succeeded in obtaining all the modifications or "species" described by Cunningham, from a single form of the comma bacillus, obtaining microscopically both the round and oval forms, the comma in the most varied shape, and, finally, also the partially screw-shaped form mentioned by Cunningham. Microscopically he has obtained cultures which would not dissolve gelatine, and so on, past the typical colonies described by Koch to those which would entirely and rapidly dissolve the gelatine medium.

Hueppe, therefore, affirms that the "species" described by Cunningham are nothing more nor less than nutritive modifications of Koch's comma bacillus, and that the evidence brought forward by him is insufficient even for the assumption of any other bacillus being the ætiological factor of the disease.

While we have thus demonstrated the possible fallacy of Cunningham's assertions, based as they undoubtedly are upon firm conviction, it will be well for us to add a few salient points in confirmation and proof of Koch's claims, basing our assertions on the results of the most recent bacteriological investigations in this domain in Europe.

Never has the comma bacillus of Koch been found in the intestines of healthy individuals—or still more exactly, never has it been found in the intestines of other than those suffering from cholera—although Klein has vaguely endeavored to show that they may exist in the healthy organism. Whether or not during the progress of an epidemic, a subject physically indisposed to infection may take into his system the germs of cholera without suffering from the disease is by no means proven. Of the varieties of

comma bacillus that can be grown in cultures, only one—the Finkley-Prior variety—has ever been found in the mouth and intestines of a healthy individual.

In Europe, Koch's comma bacillus has only been found in unquestionable cases of Asiatic cholera. And in this conclusion all investigators agree, which is in unison with our epidemiological experiences regarding the introduction of the disease from India, and decidedly in confirmation of Koch's theories. For all these reasons we may be safe in concluding that from all points of view the only tenable ætiology of Asiatic cholera is that which may be termed the "parasitic," and that Koch's views of the ætiological importance of the comma bacillus is proven.

Koch's statements regarding the purely contagious character of cholera, are subject to discussion. On account of the ease of the inoculation of animals from pure cultures of the bacillus, many investigators were prone to accept the possibility of a similar direct inoculation in man, and not to lay sufficient stress upon the possibility for disposition or immunity, and the importance of miasmatic conditions as affecting the parasite when not in the human organism. In cholera this may have been initially excusable in so far as the hardiness exhibited by the cholera bacillus against both dryness and decomposition was well known. Nevertheless, the fact of the ease with which the bacillus could be cultivated, opposed to the one-sided contagion theory, should have aroused the theory of infection.

We know of no unnecessary proofs in nature, and the saprophytism of the comma bacillus as such, and ease with which the parasitic comma bacillus can accustom itself to a saprophytic life after living in the animal organism although the nutritive element upon which it feeds may be most poor, is alone sufficient to award the saprophytism of the comma bacillus in connection with the miasmatic view of the disease an important rôle in the epidemiological ætiology of cholera.

We cannot, therefore, in a just consideration of this important subject confine ourselves on the one hand to a "purely contagious" view of the disease, or on the other hand to a "purely miasmatic" view.

Hueppe's experiments have conclusively shown that in the saprophytic life of the comma bacillus and the parasitic life, there are the following differences: During the anaërobic life of the parasite in the intestines, in consequence of anaërobic decomposition of the nutritive matter there, the comma bacillus is unusually poisonous, and capable of showing but slight resistance to external influences; while in their aërobic life they show marked variances and a lessening of their virulence, but on the contrary gain greatly in hardiness.

From the results of the above observations Hueppe sums up the subject succinctly in the following clause: "The comma bacillus is the cause of Asiatic Cholera; these bacteria give rise in the intestines to a poisoning of the organism, which action is not dependent upon their anaërobic life there. In consequence of this anaërobic life in the intestines these parasites become highly poisonous, but, owing to the poor development of membrane, are very prone to influences from external sources. In this virulent but feeble condition they leave the body, so that they (by reason of this weakness and not from lack of virulence) are not suitable for direct transmission from the diseased person to the healthy organism, and, therefore, direct contagion from cholera is exceptional. In their aërobic growth outside of the organism they become more hardy, that is to say, more suitable for infection, and this infection is determined by outside causes, and as a rule is indirect or miasmatic.

The cholera parasite, according to Koch's demonstration, lives only in the intestines, and does not enter either into the blood or tissues. Koch, therefore, sought to explain the infectious actions of these parasites in claiming that the choleraic process was one of poisoning caused by the parasite forming a poison in the intestines which was absorbed into both blood and tissues. In fact several investigators, including Nicati, Rietsch, Koch, Van Ermengen, Klebs, and Hueppe discovered a poisonous action in the bacillus,

and Brieger was able to obtain from a basic culture ptomaines which he isolated as toxines. But yet these experiments, which seemed to promise so much at the outset, proved to be failures, and the entire second part of the ætiology of cholera, and the entire toxicology of the comma bacillus remained an unsolved problem. The fact had been entirely overlooked that the class of poisons thus demonstrated occurred only at a late period of the aërobic life of the parasite, and Hueppe had been able to prove in his laboratory that the development of these toxines destroys the true choleraic poison.

It, therefore, remained necessary to primarily answer several fundamental questions; and this Hueppe, with the aid of his assistants Wood and Scholl, has been able to do. First, since the bacteria in the intestines live without air, or at least with only a minimum quantity of air, therefore, the problem of the anaërobiosis of the parasite must first be solved; and, secondly, the nutritive surroundings must be rendered more natural than those obtained by *bouillon*, or in other words, made as closely as possible to simulate the nutritive soil existing in the intestines.

Hueppe found that by restricting the amount of oxygen that came in contact with cultures he could gradually force the parasites to a strict anaërobic mode of life. Hueppe also found that to ensure the growth of the parasite in such a condition of strict anærobiosis, a but slightly changed and if possible genuine albuminoid body was necessary. He, therefore, conducted his cultures in raw eggs, and was in this way enabled to obtain so much poison in an egg that he was able to kill three guinea pigs under symptoms far more characteristic than any heretofore obtainable through other inoculations. Hueppe therefore, considers himself justified in assuming that he has thus solved the problem of the second question relating to the ætiology of cholera.

Lack of space forbids our going into any detailed description of these vastly interesting experiments of Hueppe and his assistants, and we must restrict ourselves to a brief recital of the principal results obtained, which are as follows:

1. The comma bacillus can be cultured both in regard to the quantity of air (anaërobiosis) and the nutritive soil (albumen) under precisely the same conditions as those found in the intestines of the human organism.

2. In such cases the comma bacillus forms from the albumen a characteristic poison which belongs to the albuminoids. From the albumen is formed a substance which in a purified state gives all the reactions of a peptone. This poisonous peptone paralyzes animals into which it is injected, their coat becomes deranged, the conjunctival reflex is entirely absent, then twitching of the extremities, and finally death occurs, in the majority of cases in a few minutes.

This substance like other peptones is not altered by boiling, in so far as its chemical reactions are concerned, but its poisonous action is destroyed if it subjected to a temperature of 70–75° C. for any length of time or immediately if it be boiled.

The peptone answers all the indications of a specific and typical cholera poison.

Hueppe's experiments show that while the ptomaines found by other observers were important and interesting as far as the saprophytic life of the bacillus is concerned, yet they bore no relation to the parasitic life of the germ.

It is a well-known fact that epithelial cells in the intestines act as guards against the absorption of such diffusible poisons as these abnormal peptones and albuminoids, and that every disintegration of these epithelial cells leaves an opening through which the poison may reach the general organism. If this be true in the case of ordinary diarrhœas and other intestinal complaints, how much more so is it likely to be in the case of so acute a process as cholera, especially if the normal functional condition of these cells is entirely suspended.

It is further known that these epithelial cells are disintegrated by the growth of the cholera bacillus within the intestine, and therefore the probability of an absorption of the poison greatly enhanced.

As the poisonous action of cholera is a most acute process, the therapy which acts as an antidote is at best greatly hampered, and it is for this reason that our treatment has been so unsatisfactory. A therapy that would check the growth of the poison makers (the bacilli) is indicated, and it is on this ground that the use of the salols has been attended with such favorable results. But the question of therapy we must, however, leave for a future article.

## BOOK REVIEWS.

PHYSICAL DIAGNOSIS: A GUIDE TO METHODS OF CLINICAL INVESTIGATION. By G. A. GIBSON, M. D., D. Sc., T. R. C. P., Ed. Lecturer on the Principles and Practice of Medicine in the Edinburgh Medical School; Examiner on Medicine and Clinical Medicine in the University of Glasgow: and WILLIAM RUSSEL, M. D., T. R. C. P. Ed. Pathologist to the Royal Infirmary of Edinburgh; Lecturer on Pathology and Morbid Anatomy, in the Edinburgh Medical School. With 101 illustrations. New York: D. Appleton & Co., 1891.

The authors of this new addition to our list of text-books of physical diagnosis are to be congratulated upon having produced one of the best practical guides to the knowledge of that most important subject. The arrangement and general plan of the subject as treated by them is more nearly perfect than that usually adopted in such treatises, and will undoubtedly be highly welcome to American students by reason of its simplicity and thoroughness of detail.

Temperature is first taken up, the various types being well illustrated by charts, and is followed by a chapter devoted to the integumentary system, which is excellent and not too full. Next, the circulatory system is considered, and in this section some original cuts will emphasize the points intended to be impressed upon the student. The same may be said of the next chapter which systematically goes over the latest views regarding the physical exploration of the respiratory organs. The alimentary system and the abdominal viscera are next dealt with, followed by a chapter devoted to the urinary system. The book ends by a chapter upon the physical diagnosis of nervous diseases, and an excellent chapter upon examination of the eye, ear, larynx and naso-pharynx.

The value of the work lies chiefly in the manner in which the subject is presented, in the generalization of symptoms instead of their particular significance in any one condition of disease, and in the faithful attempt of the authors to accurately picture to the student the conditions giving rise to physical signs, instead of attempting to deal with diseases individually, regarding their physical symptoms. The metric system of weights and measures is used throughout. The cuts are original and well executed.

Students and practitioners will find this treatise a valuable one, and principally because it limits itself strictly to the province of physical diagnosis, while at the same time its completeness of detail and description leaves little for adverse criticism. To those already acquainted with the careful work of Dr. Gibson, this book will not come as a surprise

BOTANY. A CONCISE MANUAL FOR STUDENTS OF MEDICINE AND SCIENCE. By ALEX. JOHNSTONE, F. G. S., Lecturer on Botany, School of Medicine, Edinburgh. With one hundred and sixty-four illustrations, and a series of floral diagrams. New York: D. Appleton & Co. 1891.

In the preparation of this manual the author has endeavored to compile an illustrated digest and general note-book which the student would find useful in conjunction with systematic instruction.

This little book is, of its kind, one of the most admirable we have ever read. It is written with conciseness and marvellous clearness, the illustrations and the floral diagrams are excellent, and the work of the publisher is equally commendable. It is just such a manual as will thoroughly be appreciated by beginners in botany.

## LITERARY NOTES.

—William Dean Howells' new novel, "The World of Chance," began in *Harper's Magazine* for March. Judging from the opening chapters alone, this story promises to outrival in interest anything hitherto written by that distinguished author. This number of the *Magazine* is also especially strong in American subjects.

WHEN BUSINESS AND MORALS ARE ONE.

—It is a very common thing for people to lament that they did not get rid of this or that property before its value depreciated. Of course, what they are really sorry for is that they could not have contrived to saddle their loss on some one else. It is a sign of the imperfection of contemporary benevo-

lence that good people should have such feelings and should regard them as matters of course. They are humorously unchristian. The utmost the average contemporary moralist enjoins is that a man shall not "unload upon his friends." He cannot so much as imagine a scruple about sending out cadescent stocks in open market.

It will not be so when the millennium comes. Property will continue then, as now, to fluctuate in value, but the prospect of a depression will no longer strike the owner as a good reason for selling out. His superior moral sense will then, as now, be profitable to his estate, since property doesn't always depreciate as much as is expected, and often in the end it recovers more than it lost. But the great advantage from a business point of view of the perfected altruism will be emancipation of the altruist from panic and all its consequences, since the man who is more ready to accept his loss than to pass it on, is not to be scared into a foolish sacrifice by the shadow of it beforehand.—From "The Point of View," in the March *Scribner*.

### WINE DRINKING AT DINNERS.

—It is an undoubted fact that the serving of many and heavy wines at large dinners is gradually becoming a thing of the past, writes George W. Childs in the January *Ladies' Home Journal* Of course, I do not mean that wines are no longer served, for they are and always will be, so long as civilized men consider them a feature of dinners. But I do mean that of the varieties of wine there are fewer, of the quantities less, and of the qualities lighter, than was the custom ten years ago. Were I preparing for a large dinner for men—which is always from the nature of things more heavily wined than an ordinary "mixed" dinner—I should not think it in the least degree necessary to order anything like the same amount or assortment of wines that would have been imperative a few years ago. And in extenuation of the statement that the qualities of the wines served are becoming lighter, the simple fact that at the average English dinner table port wine has been almost entirely superseded by claret, may be cited. It is also becoming a very ordinary thing at English dinners to meet prominent men who do not drink wines of any kind, and in our country this is becoming more and more a fact. Of course, a dinner must have fluids; the best of solids require some liquids with which to relish them, and a dinner would be but wasted energy and material without them. But I think it is no longer imperative to serve wines, or at least we can serve with them some other beverage which will be of equal pleasure to the constantly increasing set of people who find that wining and dining together is rather too heavy a combination for their comfort.

## CORRESPONDENCE.

### HYPODERMIC INJECTION OF WATER AS A LOCAL ANÆSTHETIC.

EDITOR MEDICAL AND SURGICAL REPORTER:—In your issue of January 9th, 1892, you quote Dr. C. L. Schleich's experiments on the production of local anæsthesia by the hypodermatic injection of water; his article appeared in the *Deutsche Medizin Zeitung*, No. 66, 1891.

This is not a recent idea, as many journals copying the same have seemed to infer; on the contrary it has been known for fifteen or twenty years. The *Boston Journal of Chemistry* for October 1876, says in this regard, "It is found that subcutaneous injections of water often relieve pain just as effectually as when morphia is used. Nerve pains, neuralgia, sciatica, and the like are more likely to be relieved than the sufferings incident to chronic progressive diseases, as cancer." Then again Dr. Lafitte in a letter to *l'Union Médicale*, of October 5th, 1875, says that he uses an injection of two grammes and then waits a few minutes; if the pain is not relieved then he injects a second similar amount, even in some cases injecting as much as "five or six syringefuls.' He thinks that one should not inject less than two grammes nor more than ten. Dr. Dieulafoy recommends that eight or ten drops of water be injected into the seat of the greatest pain; he adds, that if necessary, this may be repeated ten, twelve or fifteen times at one sitting.

Dr. Griffith writes at length to the *British Medical Journal* and I will quote his words—

"I have attended many patients who had been in the habit of taking morphia, and have treated them with the hot water plan, to the great improvement of their health, and the weaning them of the baneful poison. Even in cases of delirium tremens which had been accustomed to the injections, and in the fury of delirium persisted in calling out for them, I have employed the hot water and so lulled them to rest. But here I would pause to admit that sometimes this plan would fail me, and then I would fall back upon injecting a small dose of morphia first, following it up with the use of the hot

water in two, three or four hours. But it is in the cure of sciatica and deep-seated pain, as well as brow-ague and similar distress that I have found the hot water injections most beneficial; indeed, I cannot recall an instance of failure. For the purpose of carrying out this method of cure I had, in 1868, a hypodermic syringe made after my own plan. The needle is some inches in length; the cylinder is silver (I had broken many glass tubes or cylinders when drawing in the hot water), and contains a drachm and a-half of fluid, if such an amount should be required to be thrown in. The piston has not a screw action, but runs up and down like an ordinary syringe in order that the water may be expelled with the amount of force the operator may think best. In some instances, burying the needle up to the very end, I force in the hot water amongst the muscles, and then withdraw the instrument immediately afterwards, placing the tip of my finger on the perforation point, and, by a rolling movement, dispersing the fluid in its bed. The long nozzle of the syringe acts as an acupunture needle, the fluid as an additional counter-irritant, the patient complains of a smarting, burning sensation, soon followed by relief from the pain; and if the operation be done in the patient's own home, and while he is in bed, sleep will often supervene. In this manner, I have frequently stopped sciatica, the agony of acute lumbago, or that resulting from a sudden strain or fall, besides other minor pains."

These we see are practically all the same, Dr. Griffith, only, deviating slightly in specifying *hot* water. We see then that the method of treatment has an undoubted age of sixteen years, and if we date from 1868, when Dr. Griffith had his special syringe constructed, twenty-four years. In all probability, from the time of Dr. Griffith's letter, he had used the method before that date.

If there is any efficacy in the treatment therefore France deserves more credit than Germany, and England more than either, for apparently priority is possessed by Dr. Griffith.

I have not read "to contradict or confute," to quote Bacon, but to try to give honor to whom honor is due—that is if there is any honor to be distributed—and to show that Drs. Dieulafoy and Lafitte, but particularly Dr. Griffith, deserve credit for their investigations previous to those of Dr. Schleich.

CHARLES MILTON BUCHANAN, M. D.,
Washington, D. C.

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Have the sick room well lighted—sunlight.

# PERISCOPE.

## THERAPEUTICS.

### CHLORINE WATER AND QUININE IN TYPHOID FEVER.

Dr. Burney Yeo recommends as the best antiseptic in typhoid chlorine water with quinine. It is made by putting 30 grains of powdered chlorate of potash into a 12-ounce bottle with 40 minims of strong hydrochloric acid, the bottle is to be corked, the gas allowed to generate, then water is poured in little by little and well shaken with the gas, and finally 24 or 36 grains of quinine and an ounce of syrup of orange peel are to be added; of this mixture an ounce is to be given every two, three, or four hours. In the early stage—first week—one or two full doses of calomel—5 to 10 grains—are recommended, especially if there is constipation.—*Amer. Drug.*

### THE TREATMENT OF TACHYCARDIA.

The most distressing affection known as paroxysmal tachycardia, or "rapid heart," has unfortunately not generally proved as amenable to treatment as could be desired; but Dr. Poulet of Plancher-les-Mines has recently found a remedy in a little-known plant indigenous to Alsace, which appears to exert a rapid and beneficial influence over the paroxysms. The plant in question is the Coronilla varia, or *faucille*, which, like some other species of Coronilla, is sometimes used as a household remedy, being considered to have cathartic and diuretic properties. Some recent research by MM. Spillmann and Haushalter on a closely allied species—Coronilla scorpioides—showed that the plant acts as a powerful heart tonic, causing an increase in the arterial tension and in the fulness of the pulse, exciting diuresis and diminishing œdema and dyspnœa—acting, in fact, very similarly to digitalis. Dr. Poulet was induced by these researches to make trial of Coronilla varia in heart cases. He employs a tincture made from the entire plant (1 in 5), also a powder made from the flower. The dose per diem of the tincture is from half a drachm to a drachm, and that of the powder from fifteen to thirty grains. These preparations, though they have a strong characteristic odor, are not nearly so disagreeable to the taste as those of Coronilla scorpioides. Details are given of two very severe cases in which these preparations of the Coronilla varia gave almost immediate relief. M. Poulet recommends this drug also in other

heart cases where digitalis has been used, and where it seems to have been given for too long a period, or, as sometimes occurs, where it has begun to act on the gastro-intestinal canal.—*Lancet.*

## HYPODERMIC INJECTIONS OF CARBOLIC ACID IN TETANUS.

Strazzeri and Titone report (*Rif. Med.*, Nov. 10th, 1891) a case of traumatic tetanus in which they effected a cure by Bacelli's method of hypodermic injections of carbolic acid. The patient was a boy aged nine, who had fallen on his right knee, bruising and slightly grazing the skin. Eight days after the injury he developed well-marked symptoms of tetanus. He was treated with injections of a 2 per cent. solution of carbolic acid repeated every six hours, opiates being given internally. The boy's surroundings were very unfavorable, as he was one of a large family living in a miserable hovel, which was shared also at night by a mule. In spite of this an improvement in the symptoms was noted after the first few injections. On the fifteenth day the patient recovered the power of mastication, and after four weeks' treatment he was completely cured.—*Brit. Med. Jour.*

## DIURETIN.

Kress, (*Münch. Med. Woch.*, Sept. 22, 1891) in a paper reviewing what has already been written on this drug, and describing in detail his own observations in a large number of cases, comes to the following conclusions: Diuretin is a true diuretic, increasing equally the fluid and solid constitutents of the urine. Its action is due to a direct, unirritating influence upon the renal parenchyma; albumen does not appear in consequence of its action, and if already present in the urine its amount is not changed. The frequent favorable influence of the drug upon the organs of circulation is probably produced indirectly. The best results from its use are obtained in cases of acute and chronic diseases of the heart and kidneys, especially acute nephritis and uncomplicated valvular disease. Good effects may be expected in chronic nephritis, and myocarditis, whereas in simple serous effusions, as in tuberculosis, the drug is of no use.

Diuretin can be continued for a long time in large doses, two drachms a day, without any alarming secondary effects. The continued administration of the drug in cases of the above mentioned diseases, does not decrease its diuretic action.

A similar series of observations is recorded by Pfeffer, who strongly recommends diuretin, especially for cardiac dropsy and chronic renal disease. When compared with digitalis, however, diuretin is found inferior as a cardiac stimulant, while superior in its action on the kidneys. Pfeffer's conclusions in other respects resemble those of Kress.

## SALICYLATE OF MERCURY IN GONORRHŒA.

The tendency to routine practice in medicine, has long been the bane of the profession. This should ever be reprobated by its friends. In no department of practice is this inclination so manifest as in the treatment for venereal diseases. Well nigh every physician has a "specific method" of treatment for syphilis and gonorrhea. To this is doubtless due the slow progress compared to the treatment of other diseases.

I do not propose, in this paper, to set aright the profession on this subject, nor to add too much to what is already known, I wish, simply, to present the results of an experience, which, if it only stimulates to further research, will amply repay the writer. Having long been in doubt as to the efficiency of the ordinary plans of treating gonorrhea, and having frequently suffered disappointment and chagrin at the tardy convalescence of my patients, I was led to inquire into the rationale of these plans, and consider what, indeed, was the true course to pursue. In this consideration the following points presented themselves: First: this is not an ordinary inflammation, but a specific disease—a peculiar poison, whose toxic properties are manifested in the pathological condition of the part affected.

Second: not only is the origin of the disease due to this cause, but its duration is also dependent upon the same element, present in the pus secreted from the mucous surface of the urethra. If the pus of gonorrhœa will produce the disease when brought in contact with healthy mucous surfaces, it is certainly capable of renewing itself constantly, and perhaps indefinitely as it comes in contact with the lining of the urethra from which it emanates.

Now, if the origin and duration of the affection be due to a specific virus, what is the indication for treatment? I naturally looked for some means by which I might rob the pus of its septic properties. Salicylate of mercury is the remedy I selected, and after a fair trial, in numerous cases, and in all

stages, I feel safe in urging its claims. My plan of treatment is: ℞ Salicylate of mercury grs. ii; aqua dest. oz. vi. Sig.—Inject 3 or 4 times a day.

I find this applicable in all cases, save, possibly, in some advanced stages of gleet where the poisonous element is not present.

In short, I claim that gonorrhœa is a disease due to a specific virus or toxic agent, the gonococcus, and the only method of cutting short its duration, is to rob the disease of this element which is its chief characteristic.—*W. W. Payne, M. D., in Miss. Med. Monthly.*

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## RAPID ANÆSTHESIA WITH CHLOROFORM.

Dr. M. Cordero reports further on this subject, giving forty new cases. The mortality of those operated upon was 17.94 per cent., but not one case could be attributed to anæsthesia. The mean time to produce complete narcosis was 8.07 minutes; average duration of operations was 18.6 minutes; the average time elapsing between sleep and normal consciousness was 3.19 minutes; the average quantity of chloroform employed for anæsthesia was 18.6 grammes (3¾ drachms).—*Gaceta med. de Mexica*, vol. xxvi, 1891, p. 265.

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## SULPHATE OF MAGNESIA IN EPITHELIOMA.

The treatment of warts by the internal administration of small doses of sulphate of magnesium is said to have been attended with a considerable amount of success, even large growths disappearing under the remedy when persisted in for a sufficient length of time. It is now claimed, according to the *Medical Press and Circular*, that epitheliomatous warts may be dispersed by the same means, a paper on this subject having been read before the New Hampshire Medical Society, by Graves. Three drachms of the salt are added to 1 pint of water, and a teaspoonful of the mixture taken four times a day. The author gave an account of eight cases in which the treatment had been adopted with success; but he admitted that the possibility of erroneous diagnosis had to be considered. It was, however, a fact that growths of an elevated character with round or oval bases and ulcerated summits, discharging an ichorous fluid, were transformed by the treatment into perfectly healthy spots, which exhibited no signs of diseased structure, and his conclusion was that the result was obtained by the remedy employed.

## STRYCHNINE NITRATE IN TOXIC AMBLYOPIA.

Dr. E. Melville Black makes a strong argument for the use of the nitrate of strychnine in tobacco and alcoholic amblyopia (*New York Medical Journal*, vol. liv. p. 287). The nitrate is chosen for hypodermic use because it is less irritating than the other salts. The site chosen is over the biceps muscle, and cleanliness and perfect solution of the drug (eight grains to the ounce in distilled water) are essential; the required dose may go to twenty or twenty-five minims. In dosage of over ten minims he keeps the patient under observation for a half hour after the injection. He instances four cases in which the patient's present condition, ophthalmoscopic examination and details of treatment were carefully recorded.

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## SUBCONJUNCTIVAL INJECTIONS OF CORROSIVE SUBLIMATE IN EYE DISEASES.

Darier, (*Arch. d'Ophtalmologie*, September and October, 1891) reports a series of cases from Abadie's clinic in which the treatment indicated in the title of his paper was adopted. This method of treatment seems to have grown out of the intraocular mercurial injections suggested by Abadie two years previously for cases of sympathetic ophthalmitis, and practised by Reymond and others. The syringe employed is Pravaz's, with the needle modified, so that it penetrates the conjunctiva easily and without tearing. The eye is first cocainized. Care is taken that the syringe is perfectly aseptic, the instrument being kept, when not in use, in 5 per cent. carbolized glycerine. Darier has found a 1 in 1,000 solution of the perchloride in boiled water preferable to stronger solutions, and injects from $\frac{1}{10}$ to $\frac{1}{5}$ of a cubic centimetre; the latter quantity contains 1 milligramme of the sublimate. The injection is followed by some œdema of the conjunctiva, and more or less pain of a burning character. The first two injections are given at two days' interval, the third and fourth three or four days later. The continuance of the injections will depend upon the effect produced, and the individual tolerance to the treatment. In cases evidently of a syphilitic nature, mercury should also be administered in other ways. The records published by Darier include cases of iritis and iridocyclitis, keratitis of several varieties, choroiditis, retinitis, and inflammation and atrophy of optic nerves. The results he considers decidedly encouraging in all except the optic nerve cases.—*Brit. Med. Jour.*

## MEDICINE.

### PRODUCTION OF GLYCOSURIA AND AZOTURIA AFTER TOTAL EXTIRPATION OF THE PANCREAS.

One of the most remarkable observations made on the pancreas in recent times is that of V. Mering, who found that total extirpation of the organ was followed by glycosuria. Hédon (*Comptes Rendus*, cxii, No. 18) has repeated these observations and confirms the statement that the total extirpation of the pancreas is followed by glycosuria and azoturia. But he also finds that the glycosuria may be intermittent, and may disappear for a time. In these cases the increased decomposition of proteids, as manifested by the increased azoturia, is the most pronounced phenomenon, and the same is the case when sclerosis of the pancreas is produced by injecting paraffin wax into the pancreatic duct. In some cases diabetes insipidus, or at least polyuria, may alternate with glycosuria.—*Brit. Med. Jour.*

### URTICARIA OF THE THROAT FROM EATING MUSSELS.

At a meeting of the Société Médicale des Hôpitaux on July 3d, M. Laveran (*Sem. Méd.*, July 8th. 1891) showed a man, aged 30, who almost every morning suffered from urticarial eruptions, sometimes on the feet, sometimes on the hands, at other times on the shoulders, and more rarely on the face. On the morning of July 3d the throat had been the seat of the eruption, which produced considerable swelling of the uvula, the pillars of the fauces, and the tonsils. The eruption was accompanied by dysphagia and dyspnœa. When shown the same evening the uvula was still somewhat swollen; there was also a small patch of urticaria on the tongue and a larger one on the hip. M. Moutard-Martin said he had been called one evening to a lady who had been suddenly seized with dysphagia and a feeling of suffocation. Her tongue was swollen and projected beyond the arch of the teeth. He diagnosed urticaria of the mucous membrane of the mouth, and this diagnosis was confirmed by the occurrence during the night of a similar eruption on the lips and on the cheek. M. Rendu said he had some days previouly seen a child which, having first had an attack of urticaria on the forehead, face, and neck, was then seized with swelling of the throat, causing alarming dyspnœa. Diagnosis would have been very difficult had it not been for the eruption on the skin. M. Sevestre said he had once been called to a lady who, half an hour after luncheon, had been seized with distressing dyspnœa. The throat was extremely red and puffy. He was puzzled as to the nature of the attack, when under his very eyes an eruption of urticaria took place on the skin and soon spread over the whole body. The throat symptoms subsided in a few hours. An hour after seeing this patient M. Sevestre was called to see her son, aged 4, who had also been suddenly seized with suffocative dyspnœa. Exactly the same train of events was observed as in the mother. It turned out that both of them had eaten mussels at luncheon.—*Brit. Med. Jour.*

### ZONA IN DIABETES.

Though there have been many injuries and disturbances of the nervous system recorded in diabetes mellitus, it still remains a matter of debate in Professor Vergely's opinion how far they are to be attributed to a central and how far to a peripheral origin. In the cases of neuralgia it has been held that the absence of local heat and vesicular eruption excluded all idea of neuritis. Some good authorities, among whom were Ziemssen, Charcot, and Buzzard, did not agree with this, but the first adequate pathological demonstration of the effect of neuritis on the diabetic nerves was made last year by Dr. Auché, of Bordeaux. The myeline was seen to be vacuolated and broken up, the axis cylinder had disappeared. The clinical symptoms had been sometimes œdema, sometimes glossy skin, perforating ulcer, malnutrition of the nails, and even gangrene. But among them zona had not been mentioned, and zona was almost certainly the result of a neuritis. The parasitic theory of its origin, which Dreyfous and Letulle—following Landouzy—had put forward two years ago, had been imperfectly supported, and it is necessary to reconsider the constitutional conditions of its origin. It was very rarely referred to as associated with diabetes in the special essays on either complaint. Professor Vergely brought forward two cases of diabetes mellitus, in which it had a marked feature, and which had been under long observation. The first was a man aged fifty-four, of powerful build and healthy history and habits. In middle life he began to get uncomfortably stout, and some sugar was noticed in his water. In May 1885, he had sharp neuralgia of the right side of his forehead, which was followed by a well-marked eruption of frontal herpes, which for at least ten days gave acute burning pain, and left

deep scar along the course of the left supra-orbital nerve. The skin in this region thickened, and became gradually insensitive to pain, though remaining normally sensitive to touch and temperature. The amount of glycosuria did not greatly increase, but was complicated with albuminuria; all food was rejected; and the patient gradually sank into a uræmic condition, and died of exhaustion. The second case was that of a woman of forty-three, who had lived an active life, of good health till about thirty-seven, and since then had had much mental distress, and had begun to show signs of diabetes. When the percentage of sugar had become considerable, she got an acute neuralgia in the lesser right sciatic nerve with an abundant eruption of zona. The scars which were left were distinctly more sensitive to touch and to pain. As to what may be the temporary or permanent effect of the eruption on the secretion of sugar, and the best means of prevention and cure we have still much to learn from wider observation.—*Le Progrès Méd.*, September 26, 1981.

## SPONTANEOUS AMPUTATION OF THE TOES IN SYPHILIS.

Viennois, of Lyons, reports (*Ann. de Derm. et de Syph.*, Nos. 8 and 9, 1891) a case of moist gangrene of the toes which he attributes to the effects of inherited syphilis. The history given by the patient, a man, aged forty-three, was that at four years of age he had had convulsions followed by paralysis, which at first affected all the extremities. This was recovered from except that the left leg remained somewhat contracted and the knee slightly bent. At eight years of age a red patch appeared on the lower part of the left leg, and finally broke into a sore. This began in the month of February and lasted until June, under medical treatment. He then remained well until, at thirteen years of age, another red patch appeared near the site of the former one. This also was in the winter, and the patch broke down forming a sore, which healed in about sixteen months without medical treatment. Again there was an interval of good health until he was twenty, when two more patches similar to the preceding formed on the same leg, and again in the winter, ran a similar course, and healed spontaneously in the following summer. From this time he remained well for twelve years, when at the age of thirty-two, the patient having in the mean time become much reduced in circumstances, red patches appeared on the backs of the second and third toes of the left foot. These at first behaved like those on the leg, but the resulting ulceration, instead of healing, continued to spread slowly for ten years, at the end of which time (October, 1890) he was first seen by Viennois, who found that the second and third toes had disappeared. The patient said they had dropped off four years previously. An offensive, sloughy, inflamed ulceration occupied the anterior fourth of the plantar surface of the foot, the plantar surface of the remaining toes, and part of the dorsum of the foot. Viennois diagnosed inherited syphilis because he had "precise information" that both the man's parents had had syphilis, the mother having had among other tertiary affections a perforation of the palate, and from the lesions above described, which he considered to have been gummata. The patient himself had never suffered from any venereal disease, and his wife and only child were healthy. Under specific treatment carried out at the man's home where the conditions were insanitary, only temporary improvement took place. He was then admitted into hospital under the care of Ollier, and there, under iodide of potassium and tonics internally and salol locally, citcatrization was complete at the end of a month. Viennois also refers to other cases of gangrene, both moist and dry, been recorded by various authors in connection with syphilis.—*Brit. Med. Jour.*

## "TIC CONVULSIF."

Dr. Berthold Beer publishes in a Vienna journal a contribution to the treatment of "tic convulsif." He begins by stating the well-known fact that partial convulsions or involuntary muscular contractions are no rare occurrences. Clonic convulsions are frequently observed in a small lateral portion of the inferior part of the orbicularis palpebrarum. They often last for some minutes, and are generally symptoms of conjunctivitis or of slight pathological changes in the region of the palpebral margin, and in the ducts of the Meibomian glands. Many authors call these, as well as the clonic contractions of parts of a muscle, such as occur frequently in the bicipital groove, in the abdominal muscles, and in other parts, fibrillar muscular convulsions. The name is, however, really only applicable to the fibrillar convulsions after anæmia, which Sigmund Mayer described, and which may be well observed in the tongue and facial muscles of recently decapitated animals. In clonic convulsions of this kind the peripheral source of the

affection may be recognized by the dilatation and congestion of the neigboring blood vessels and by a slight inflammation of the muscular tissue. In this form of convulsions an anatomical alteration of the peripheral tissues near the affected muscle is found, but very frequently contractions of the palpebral muscles are observed, which may be considered merely exaggerations of the normal palpebral function. The twitching occasionally extends to the facial and frontal muscles, so closely connected with the palpebral muscles, and corrugation of the eyebrows and elevation of the alæ nasi, or of the angle of the mouth occurs. The mechanism of these contractions, which represent the simplest form of tic convulsif, and which, being merely considered bad habits, seldom come under medical observation, is of a reflex nature, resembling involuntary action. Other cases of tic of the kind which comes most frequently under medical observation may obstinately resist every treatment, until it is possible to remove the original cause of the attacks. This is generally situated in the nasal mucous membrane, the palate, the periosteum of the facial bones, or the alveolar margin. Cocaine is a most valuable remedy in such cases. In rarer cases the facial epidermis provides the means whereby the tic extends over a larger area, and in one case of this kind slight valvular dilatations in the infra-orbital region contributed to the greater intensity and frequency of the attacks. In such cases the usual and easily excited reflex and automatic movements may be also considered, as they may be the ultimate cause of the attack. This is especially the case when the affected muscles, from a cerebral or peripheral cause, have been temporarily paralyzed or weakened in their functional capacity. In such muscles reflex and automatic impulses, such as operate in sneezing, laughing crying, expressions of fear, and others, may be stronger than in healthy muscles. An appreciable disturbance of sensibility may not therefore be present, and yet local anæsthesia of the nasal mucous membrane may cut short the attack, and tic which has been caused by cerebral conditions may be improved by peripheral treatment. —*Lancet.*

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"Eureka!" cried the young doctor.

"Why, what's the matter, my dear?" asked his wife.

"My fortune is made. If Pasteur and Koch can cure consumption and hydrophobia, why can't I take some Jackass virus and down asininity?"—*New York Herald.*

## SURGERY.

### THE OPERATIVE TREATMENT OF IRREDUCIBLE LUXATIONS OF THE THUMB.

Dr. Montez states that the operative treatment of this trouble has attracted but little attention, and some authorities have condemned surgical interference. Dr. Mortez, however, thinks that these patients should enjoy the benefits of antiseptic surgery, for the sake of improving the appearance of the thumb, even when its functions are not much interfered with. As regards the methods of operation, arthrotomy is not of itself sufficient to effect reduction, and section of the lateral and capsular ligaments has proved of no service. Resection alone is of value. The incision should be anterior and made over the head of the metacarpal bone; the periosteum and capsular sheath are detached, and the head of the bone excised. If the patient is young the periosteum should be abraded to avoid periosteal proliferations and anohylosis. —*La Tribune Medicale.*

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### STAB-WOUND OF THE SPINAL CORD.—A STUDY OF BROWN-SEQUARD'S PARALYSIS.

Neuman (*Virchow's Archiv.*, Bd. cxxii., Hft. 3), reports five carefully observed cases of wounds of the spinal cord at various levels, involving partly one-half of the cord and also the nerve roots. Only two cases corresponded with the genuine Brown-Sequard transverse hemisection. In one case oblique division was found affecting only one-half of the cord, although the marked hæmorrhage at the point of injury and the level of the wound presented the picture of a complete transverse separation. A change in the muscular sense, after a long time, was demonstrable only in one case, confirming Erb's assumption of a non-decussating course of the corresponding nerve tract. Ataxia was present in one case shortly after the injury. In every instance the victims fell to the ground immediately, some becoming unconscious. The loss of blood was generally considerable. There was high fever in two cases, without suppuration, having occurred during the healing process. The writer believes this was due to the injury of the nerve centres. In one case there was remarkable warmth of the body twenty-four hours after death, although it was winter. Injury of the anterior horns or of the fibre tracts, immediately after their exit, was suggested in two cases, owing to the interference with the growth of the limbs, and especially a lack of development of the

bones on the paralyzed side. In four cases the healing process progressed without complication, and in the course of time improvement took place without further treatment. In the opinion of the author, a cautious galvanic or faradic treatment is indicated, and may prove of value after healing of the wound. The absence of secondary and neuritic degeneration essentially differentiates these incised and punctured wounds in their course and especially in prognosis, from inflammatory and pressure lesions of the cord which present a similar appearance.—*Centralbl. f klin. Med., No. 39, 1891.*

## SUCCESSFUL RESECTION OF GANGRENOUS BOWEL FOR INCARCERATED INGUINAL HERNIA.

Stern (*Berliner klin. Wochenschr.*, No. 41, p. 1011) has recorded the case of a woman, sixty years old, who came under observation after having presented, for a week, symptoms of intestinal obstruction, dependent upon an incarcerated inguinal hernia. An incision over the most prominent portion of the swelling in the right inguinal region confirmed the diagnosis and revealed the existence of peri-hernial suppuration. The incarcerated bowel was found gangrenous and perforated. Most careful antiseptic precautions being observed, the incarceration was relieved.

The healthy intestine, on either side of the gangrenous area, was firmly grasped by an assistant and a section of bowel, about two inches long, was removed. The free margins of the remaining intestine were approximated by means of Lembert sutures, the first suture being applied at the point furthest from the mesentery, the distance being progressively halved with each succeeding suture. After satisfactory approximation, the wound was closed and dressed. The subsequent course of the case was surprisingly uncomplicated. Twenty-five days after the operation the patient was able to resume her household duties.

## MEDICAL CHESTS ON RAILROADS.

On all French railroads, even those of slight importance, having a physician in charge, there are medical chests on the trains. A principal physician, at a salary of $1,000, is supposed to supervise all the roads in France. This appointment has been abrogated, as no one man can inspect all the roads. Each company now has its own physician and surgeon to do the inspection formerly done at the expense of the State.—*La France Medecale.*

## SURGICAL FILARIOSIS.

Moty, (*Revue de Chirurgie*, January, 1892) reports six cases of lymphatic varix in the groin and scrotum, due to the presence of filariæ in the blood and lymph. The patients all of whom had resided in French colonies, came under observation at the Val-de-Grace. This inguino-scrotal swelling, it is thought, may frequently occur amongst those who have returned to Europe after a sojourn in any of the districts infected by the parasite, the nature and origin of the affection being probably often overlooked. Moty discusses at length the serious questions relating to filariosis, and at the end of his paper gives the following summary: "(1) Filariosis is an aseptic parasitic affection. (2) It is due to the presence in the body of the filaria sanguinis hominis. (3) It is of very frequent occurrence in most of the French colonies, including New Caledonia. (4) It is most frequently manifested by dilatation of the glands and lymphatic vessels of the groin and spermatic cord. (5) The pathology of the filarial phenomena seems to consist in the irritative action of the filariæ and their embryos, both being nomadic on the cellulo-lymphatic system. (6) It is possible to base the diagnosis of filarial lesions on clinical data, but it ought to be confirmed by examination of the blood. (7) No results have yet been obtained from internal remedies in the treatment of filariosis. (8) Attempts at external palliative treatment cannot be strongly recommended; excision of the hypertrophied structures is indicated when their size causes much inconvenience. (9) In the course of such surgical interventions, living or dead adult filariæ may be removed with the diseased tissues."—*Brit. Med. Jour.*

## INTESTINAL OBSTRUCTION FROM MECKEL'S DIVERTICULUM.

Oderfield publishes in the *Gazeta Lekarska* the particulars of an operation for acute obstruction of the bowel caused by the presence of Meckel's diverticulum. The distal end of the diverticulum had become attached to the mesentery, thus forming a loop through which a coil of intestine had slipped. The excessive formation of gas in the bowel had compressed the knuckle of intestine and caused it to become fixed. The author, in performing laparotomy, freed the incarcerated coil by separating the adherent end of the diverticulum, and to prevent a relapse he removed the latter by a circular incision at its base. The patient recovered. Oderfeld also discusses the mechanism, pathology, and

the various causes of this form of obstruction, and states that no case is known in which the cause of the obstruction was diagnosed before the operation. Two symptoms, however, possess a certain diagnostic value. When obstruction occurs in a patient suffering from harelip or some other congenital deformity, the former is probably due to the presence of Meckel's diverticulum. It is also important to have the history of the patient's early life. When during the latter an unbilical fistula has existed with fæcal discharge, which, however, has occasionally healed voluntarily, the same conclusion may be drawn.—*Lancet.*

## SURGEON AND PATIENT.

Our attention has been directed to the case of Bachelor *versus* Gore, which came before the Supreme Court of New Zealand at the end of last year, and will be found fully reported in the *Otago Daily Times* of Decem-23d, 1891. The following are the chief facts of this singular case, which was one of a claim on the part of Dr. Batchelor, the plaintiff, for a fee for medical attendance, and a counter-claim on the part of his patient, who was the defendant, for damages for alleged unskilful treatment. Mr. Gore, a contractor, aged 55, after having suffered during four years from pulpy disease of the right knee, for which he was first treated by Dr. Batchelor, and subsequently on and off by other practitioners, returned to the plaintiff in September, 1888, deteriorated in health and the diseased joint much disorganized. The plaintiff, convinced that it would then have been useless to persevere with expectant treatment, in which opinion he was supported by other experienced surgeons, excised the diseased joint. Although it is not clear whether amputation was proposed as being a much more promising method, there can be no doubt, from the evidence, that the patient absolutely declined to lose his limb. The age and unhealthy condition of the plaintiff being considered, it seems to have been a somewhat bold step on the part of Dr.Bachelor to undertake excision in this case. Notwithstanding the unfavorable condition, however, the correctness of his view was justified by the results, as it was shown by strong medical testimony, and also by the admissions of Mr. Gore himself, that the operation had been followed by complete success.

Firm union of the bones was much retarded, but this seems to have been unavoidable, as the patient, who was a restless man, insisted of sitting up in bed on the fourth day after the operation, and after the first week reclined daily in an arm-chair. The plaintiff, in cross-examination, acknowledged that he was able with his saved limb to descend steep embankments, to attend race-courses, and to visit mines. He is to be seen daily, it is stated, walking about the streets with a light stick, apparently quite restored to health, and able to follow his usual vocations.

After a brief consultation a verdict of three-fourth of the jury was returned for the plaintiff, awarding the full amount claimed. It is to be regretted that the jury did not adopt a suggestion of the plaintiff's counsel, and state, as they might justly have done, that there was no ground whatever for Mr. Gore's course of conduct. This is one of the worst instances of the "ungrateful patient" that we have met with, and we feel sure that the profession in this country will join their colleagues in New Zealand in congratulating Dr. Batchelor on the skill he has shown in this case, and on the result of this vexatious and unreasonable action.—*Brit. Med. Jour.*

## ABORTIVE TREATMENT OF URETHRITIS.

Dr. J. W. S. Gouley. in a series of articles on "Disease of the Urinary Apparatus" being published in the *M. Y. Medical Journal*, speaks as follows of the abortive treatment of urethritis: "The treatment of acute urethritis was for a long time based upon erroneous notions of its nature, and directed to the substitution, as it was believed, of a simple, inoffensive, for a specific phlegmasia. This treatment, suggested in 1780 by Simmons, and afterward largely employed by Ricord, Diday and others, consisted of urethral injections of nitrate-of-silver solution (ten, fifteen or twenty grains to the ounce), and was named the abortive, to distinguish it from the methodical treatment. This supposed quick way was as delusive as it was alluring, alike to patients and to physicians, for it seldom cut short the attack of urethritis, and besides the great distress it caused, was often productive of grave effects upon the urethra and adjacent parts, the first effect being a super-acute urethritis, then peri-urethritis, lympangeitis, sometimes prostatitis, trachelocystitis, gonecystitis, orchitis, etc. Inasmuch as this too heroic treatment is still, though very rarely, recommended, it was thought necessary to give this note of warning to younger members of the profession against the employment of means which not only fail to remedy, but serve to aggravate the affection."

## MECHANISM OF FRACTURES OF THE PELVIS.

Areilza (*Centralb. f. Chir.*, No. 41, 1891), who, as medical officer to large mines in the northwest of Spain, has had much experience of pelvic injuries, compares the features of fracture produced in the living body through injury with those of fractures artificially produced on the pelvis of the cadaver by a machine so constructed as to compress the bones transversely between a fixed and a movable plate. The following effects, it was found, are produced by gradually-increased lateral compression of the pelvic girdle; flattening of the iliac bones and increase of the antero-posterior diameter of the pelvis; separation of the bones of the pelvis and disruption of pubic symphysis and of the sacro-iliac synchondrosis; fracture of the pelvic arch, generally through tho horizontal ramus of the pubes; fractures near the symphysis and sacro-iliac synchondroses, and disorganization of these articulations. The following conclusions have been drawn from the results of numerous experiments, and from observations of thirteen cases of fractured pelvis, in the majority of which the urethra was wounded: (1) In injuries of the pelvis caused by pressure applied simultaneously to both sides, one iliac bone only is as a rule flattened and displaced, the other remaining unaltered; symmetrical quadruple fracture of the pubes and ischium on both sides is of very rare occurrence. (2) The nature of the injury is influenced to a considerable extent by the elasticity of the pelvic girdle; in consequence of this elasticity the bones regain their previous form and position after having been subjected to enormous pressure, so that in the living patient, and even on examination after death, it is difficult to determine what had been the nature and extent of the changes produced at the time of the injury. (3) Of the injuries of the soft parts, the more important are those involving the urethra. These are usually localized in the membranous portion. (4) Cases of complete laceration of the urethra and of perforation by splinters of bone being excepted, the most frequent injuries are caused by teasing of the aponeurotic structures attached to the margin of the pubic arch, as a result of displacement of the pubic bones, one of which often over-rides the other; these injuries consist in small lacerations, which rarely involve the whole thickness of the urethral wall, and which give rise to ecchymoses, hæmorrhage from the urethra, and, after a time, stricture. (5) The urinary effusion after injury from transverse pressure does not accumulate in the perineum, but passes upwards into the cavity of the pelvis, and thus constitutes a very grave condition, which should be treated by an early incision in the hypogastric region.—*Brit. Med. Jour.*

## OBSTETRICS.

### DEATH AFTER LABOR FROM TORN PERITONEAL ADHESIONS.

A. Holowko (*Zeitschr. für Geburtsh. u. Gynäk.*, vol. xxi, 1891, pt. 2) relates the case of a pregnant woman who suddenly felt pain in the abdomen after jumping when eight months pregnant. The temperature rose to 104° in a few days. Tonic contraction of the uterus was checked by warm baths and hypodermic injection of morphine. A few days later the patient was delivered, and rapidly became worse. The pulse increased to 140. No hæmorrhage occurred after the expression of the placenta, but the patient died in an hour. At the necropsy bleeding and torn adhesions were found between the ascending and transverse colon. There was no sign of sepsis, but the peritoneal cavity contained much blood. Tearing down of adhesions occurs when women who have undergone hysteropexy become pregnant.—*Brit. Med. Jour.*

### MENSTRUATION AND LACTATION.

It is a generally received view that the supervention of menstruation during the period of lactation is prejudicial to the quality of the maternal milk supply, and therefore detrimental to the nutrition of the child. Most practitioners will probably state as a matter of observation that menstruation unfits the mother as nurse by reducing the quantity of the milk in addition to rendering it more "watery." In order to ascertain the real effect of menstruation on the quality of the milk, Dr. Schlicter has made a series of analyses which seem to show that the current belief is founded on defective observation. In addition to careful examination of the composition of the milk during and after menstruation, he had the child weighed and its general condition noted at and after the same period. He reports that in respect both of casein and fat, the milk secreted during menstruation compared favorably with that furnished prior to that date. The differences observed, moreover, in no case equalled those which occur in the milk of the normal healthy female at various periods of the same day; hence he declines to attach any importance to them.

He concludes by asserting that menstruation either before or after the sixth week can have no deleterious effect on the offspring.—*Med. Press.*

## GYNÆCOLOGY.

### THE USE OF THE ACTUAL CAUTERY IN GYNÆCOLOGY.

Dr. V. Stolypinski, in an article in a Russian medical journal, strongly recommends the more frequent use of the actual cautery in gynæcological operations, as, for instance, in the destruction of fungating cancer, for the arrest of bleeding from pedicles, and for the removal of small tumors. He uses it in the removal of the vaginal portion of the os, when required, for malignant disease, and recommends it on account of its easy application, the slight loss of blood, and the simple after-treatment. He reports only one case with an unsatisfactory result, obliteration of the os being found at a subsequent confinement.—*Lancet.*

### INFLUENZA AND PELVIC CELLULITIS.

Sigmund Gottschalk (*Centralbl. f. Gynäk.*, No. 3. 1892) noted, in the same publication in January, 1890, the frequency of endometritis in influenza. It is associated with free hæmorrhages, and it is a common complication in the epidemic now raging. He has also seen three distinct cases where parametritis or pelvic cellulitis developed in the course of influenza. In two cases there was no evidence that the pelvic disease had previously attacked the patient. The first patient was a young girl aged 21, evidently a virgin. Eight days after the period she caught influenza, and profuse metrorrhagia occurred. For three weeks she suffered badly from bronchitis. Pains in the right iliac fossa set in during the first week; the flooding lasted for a fortnight, and was followed by free discharge. A very extensive hard swelling occupied the right side of the pelvis and pushed the uterus to the left. The second patient was 22 years old. As in the first case, severe metrorrhagia set during influenza. Then, when the fever was moderate, hypogastric pains occurred, and a characteristic parametritic deposit developed in the pelvis. The third case differed from the others, for the patient had suffered many years before from left parametritis. She was taken ill with influenza on January 6th, 1892. The temperature rose very high, and parametritis developed in the old scar. By the sixth day the patient began to improve, and a very extensive infiltration was detected in the left broad ligament. In none of these cases was there evidence of peritonitis or of inflammation of the tubes and ovaries. The influenza virus may, Gottschalk observes, directly attack the pelvic connective tissue. Otherwise, the parametritis must be secondary to the endometritis—a much more frequent and very distinct complication of influenza. The poison must travel through the lymphatics of the cervix, and not along the tubes.—*Brit. Med. Jour.*

### TOTAL EXTIRPATION OF THE UTERUS FOR MALIGNANT DISEASE.

Gusserow (*Berliner klin. Wochenschrift*, 1891, No. 71) reports sixty-seven cases of total extirpation; in four of these laparo-vaginal hysterectomy was performed, with three deaths. He regards the latter operation as a dangerous one, to be undertaken only under exceptional circumstances, where the vagina is unusually narrow, or carcinoma is complicated with fibro-myomata. The total mortality 10.4 per cent. Of fifty patients who had been operated upon over a year before, sixteen were free from recurrence (one after the lapse of eight years), eleven had died from the disease, and one from pyelonephritis; eleven had a recurrence, and eleven were not heard from.

The writer believes that statistics will only be improved by early resort to the radical operation, at a time when the diseased tissue can be thoroughly removed. He rejects cases in which the vagina and broad ligaments are involved. Limitation of the mobility of the uterus (the patient being anæsthetized) by indurations in the parametria should be a contra-indication, even if the operator is not positive regarding their malignant character. By operating upon such doubtful cases vaginal hysterectomy is brought into disrepute. His strict adherence to this rule led the writer to operate upon only five per cent. of the cases treated by him.

### THERAPY IN ALBUMINURIA AND NEPHRITIS OF PREGNANCY.

Mynlieff writes: (*Der Frauenarst*, Heft 4, 1891) Prophylaxis aids us but little in preventing this unfortunate occurrence. We can recommend frequent warm baths, the wearing of woolen underwear, and prevention of all forms of excitement. If a chronic nephritis exists, the danger to the mother becomes so great—statistics show a mortality of eighty-four per cent.—that the induction of

premature labor is demanded. If an occasional albuminuria occurs during pregnancy, no treatment need be adopted besides unusual care and vigilance; but where a nephritis exists patient should be placed upon a strict milk diet. This often effects wonders; the quantity of urine becomes increased, the albumen disappears and eclampsia does not occur. If symptoms arise, warm baths and subcutaneous injections of pilocarpine do good service. Gramm and Schröder recommend the employment of the salicylate of theobromine (diuretin). Mynlieff believes that if a nephritis occurs in the early months of pregnancy, in a previously healthy woman, the induction of premature labor is indicated. When, however, it appears in the sixth or seventh month, then interference with the gestation is contra-indicated, except when very serious symptoms develop, such as dropsy, dyspnœa, etc.

## PÆDIATRICS.

### INFANTILE MASSAGE.

The *Medical Mirror* says: The young infant, which is restless shortly after birth as a result of its inability to accommodate itself to its new environment, should be given the benefits of massage not less than twice a day. The activity of the skin is thus developed, the circulation of all the external tissues is improved, and the child, if the massage is applied judiciously, is rendered restful. Many a time it will gently doze away into that land of Nod which is of such value in building up its force and strength under the gentle manipulations of the soft and tender hand. Not only is its nervous system soothed and comforted, but growth is stimulated for the reason that the growth is made perfect when the rest secured is more perfect, and when there is the greatest activity in the action of the component parts of the anatomy. An active skin, where exosmosis is most perfect creates an endosmosis between the tissues and the absorbents; the food which is partaken of by the child is more actively digested, more industriously appropriated, where there is that perfect activity of all the tissues which can be best accomplished by judicious massage.

That *bete noir* of the nursery—constipation—can be more thoroughly and permanently relieved and avoided by massage over the abdominal region than by any other method. The mechanical manipulation encourages peristalsis directly, and also urges onward, independently of the intestinal contractions, the contents of the intestine. The gentle rubbing of the liver encourages its action, and the secretions are less liable to accumulate. The effect upon the internal muscular system and the muscular coats of the intestine and of the various tubes to the secreting glands, from the stimulus furnished to the exterior is pronounced. The muscular system is a complete whole, and thorough exercise of the bulk of the system develops the working power of its individual parts, so that in massage in infants we must have, if applied thoroughly and well, a most potent factor for good.

### TREATMENT OF DIPHTHERIA.

Smith (*The Practitioner*, No. 282, p. 430) has successfuly employed carbolic acid by continuous inhalation in seventeen cases of diphtheria. He ascribes the good results largely to the method of application. The patient is placed in bed, lightly clad and made to maintain the recumbent posture. Over him is placed a tent, made of a sheet, closed on all sides except in front. Cloths, about a foot square, soaked with a mixture of carbolic acid, one part, oil of eucalyptus, one part, and turpentine eight parts, (or less, according to indications), are hung about the patient, while the surrounding air is constantly kept impregnated with the vapor of steam. The cloths are to be re-soaked as they become dry. The patient should breathe through the mouth. If necessary, the nostrils may be loosely plugged with cotton-wool. The inhalations do not counter-indicate the employment of other therapeutic measures. Should there be depression, alcohol, digitalis, belladonna, or ammonia may judiciously be administered.

### LITHOTRITY IN BOYS.

L. P. Alexandrow (*Deutsche Zeitschr. f. Chir.*, Bd. 32, Hft. 5, No. 6, 1891) has performed lithotrity thirty-two times on boys from one to fourteen years of age in the Olga Hospital for children, at Moscow. In twenty-seven of these cases the operation was successful, the little patients making excellent recoveries. In the remaining cases death occurred, in three from injury to the urethra during the operation, and in two from causes unconnected with the surgical procedure. Alexandrow's experience leads him to the following conclusions: Lithotrity is indicated in boys when the urethra is sufficient to allow the passage of a small instrument (No. 14) and the diameter of the stone does not exceed from 2 two 2½ centimetres (¾ inch to 1 inch). In other cases better results will

be obtained by suprapubic cystotomy with consecutive suture of the bladder.—*Brit. Med. Jour.*

## THE SUB-MEMBRANOUS TREATMENT OF PHARYNGEAL DIPHTHERIA.

At the recent meeting of the American Pædiatric Society, Seibert (*New York Medical Journal*, Dec. 12, 1891) gave the results of fifty additional cases treated by sub-membranous injections of chlorine water. The ages of the children varied from six months to fourteen years. In forty-four cases the injections had been efficacious, in three there had been slight improvement, and in three none. Only four patients died, all of them being very severely affected, and evidently fatally so under any form of treatment. Recovery had taken place in from one to eight days.

The satisfactory results of the treatment were shown in a lowering of the temperature, improvement in heart's action, and disappearance of the false membrane. The chlorine water was the officinal preparation, freshly made, and was injected quite deeply so as to reach the sub-mucous tissue. In the majority of cases the author had found it necessary to make only one injection. A suggestive fact is embodied in the statement that neither paralysis nor nephritis had occurred in any of the cases that recovered.

# HYGIENE.

## ARTIFICIAL TEETH FROM A HYGIENIC POINT OF VIEW.

It is common experience amongst dentists that a very large majority of artificial dentures are discolored and by no means devoid of unpleasant odor. This lack of cleanliness, which arises sometimes from neglect, but very often from want of instruction on the part of the dentist as to the necessary *modus operandi*, is a fruitful cause of inflammatory conditions. Débris of food mixed with saliva and mucus accumulating on a plate rapidly undergo decomposition, with the result of irritating the mucous membrane and producing a general inflammation of the oral cavity. The oral secretions become altered and vitiated, so as to cause dyspepsia, and caries of the remaining natural teeth is set up, which proceeds with great rapidity, especially in "clasp" dentures, not from the friction, but because the inside of the clasps generally escapes the brush. The materials used in the construction of artificial dentures differ widely in their effect upon the tissues with which they come in contact. A larger number of inflammation of the oral tissues occur where vulcanite is used as a basis than with gold or other metals, and so prevalent is this inflammation in the case of vulcanite that it has received the distinctive appellation of "rubber sore-mouth." Several reasons have been assigned for the effects produced by vulcanite. Nearly all this material is colored with mercuric sulphide (vermilion), which ingredient has been accused of being the cause of trouble; but an exhaustive investigation did not substantiate this view, one particular point being that "rubber sore-mouth" often occurred where black rubber was used, which contains no vermiilion. The porosity of vulcanite, especially when not sufficiently vulcanized, renders it liable to retain deleterious material if not kept scrupulously clean.—*Lancet.*

## COFFEE-TEA.

Mr. William Sowerby, the veteran and distinguished Secretary of the Royal Botanical Gardens, favors us with the following note on his pregnant suggestion for adding to the number of alkaloid beverages by the introduction of coffee-tea: When walking in the Gardens of the Royal Botanical Society, Regent's Park, and noting the extent of the collection of living medicinal and economic plants of all climes and countries there brought together in one spot, it must have occurred to all of us how very small a number of plants, out of the vast store which Nature has provided, man has bound to his service, and the yet fewer he has taken the trouble to cultivate. During the march of the last half century (in science, medicine, mechanics, steam, and electricity) how little has been the gain from Nature's stores. The artificial culture of cinchona is, perhaps, the most noted of the few. Again, any step in eating, drinking, dress, is so governed by habit or fashion that he must be a bold man who tries to turn the current. This is illustrated in tea drinking. Perhaps there is no one habit so universal; each people has its peculiar tea or closely allied beverage, and most of these have continued the same for many ages. In one it is cocoa, in others, coffee, and in many, tea; in a few special quarters of the globe nothing but [illegible] thought fit to drink, but in only one small district is coffee-leaf tea used. Now we all know that these beverages are found by man to be pleasant and agreeable to him by reason of their containing a peculiar [illegible]

ple called *theine;* but yet we do not always select for our use the part of the plant containing the largest percentage of *theine,* or cultivate the special plant with a view to afford us the most valuable part. For example, in coffee the leaves are said to contain 1.26 of theine, and the berries only 1.0 per cent, and yet over 110,000,000 of men use the berries, and only 2,000,000 the leaves of coffee, although 500,000,000 use the leaves of tea. Now the cultivation of coffee berries is very trying, precarious, subject to attacks of blight and unfruitfulness—in fact it follows the general line that the produce of fruit by cultivation is far more open to accident than that of the leaves, and very probably good crops of coffee leaves could be obtained at small cost in countries and localities where it would be risky or even impossible to produce berries. Here is a case open to a vast variety of people to solve, for there can be no reason why coffee leaves may not become a valuable item of culture in our warmer colonies and many parts of the world. The one most difficult item to move is to create the demand. Once start the fashion for "5 o'clock coffee-leaf tea," and the thing is done, and many a fortune made. As to the peculiar flavor of coffee-leaf tea much depends on the manipulation of the leaf after it is taken from the plant. At the Botanic Gardens a variety of flavors have by treatment been produced from leaves off one plant, the general flavor being a kind of combination of coffee and tea so as to get both in one cup.—*Brit. Med. Jour.*

## THE DISSEMINATION OF TUBERCULOSIS BY PASSENGER TRAFFIC ON RAILWAYS.

Incited thereto by Cornet's investigations, Prausnitz (*Central. für Bakt. u. Parasit.,* Sept. 18, 1891) investigated the dust taken from passenger trains for the bacillus tuberculosis. He chose for his experiments through-going cars, which were most used by consumptives. After the arrival of the train from Berlin in Munich, he swept up the dust collected underneath the compartment carpets of the selected cars, and mixed it up in a sterilized porcelain capsule, mixed a part of it in sterilized distilled water, and injected it into the peritoneal cavity of guinea-pigs. In this way twenty guinea-pigs were injected with the dust taken from ten compartments of four cars on five days. Of these twenty guinea-pigs, five developed tuberculosis. The dust used in these five cases all came from two cars. The experiments showed that the dust of railway cars, in which one would presume that large numbers of tubercle bacilli might be present, for the most part contains none of these germs, and even in the cars which are the longest on the road the dust contains but few. "The ordinary method of cleaning out railway passenger cars suffices to keep them so free of tubercle germs that danger to the traveling public in this respect seems to be excluded."

## MEDICAL CHEMISTRY.

### MYRTOL—SO-CALLED ESSENCE OF THE MYRTLE.

An anonymous writer in the *Gazzétta Chimica Italiana* states that the name myrtol, as applied to the essential oil of myrtle, is improper, since the oil is found by late investigations to be composed of two substances, one of which is an isomer of turpentine, and the other an oxygenated body, an isomer of camphor.

### TESTING FOR SUGAR IN URINE.

Dr. G. Vulpius, of Heidelberg, suggests a method of insuring the correctness of the conclusions derived from applying Trommer's test to urine suspected of containing sugar (*Pharm. Post,* 1892, 7).

It is well known that the urine contains some normal and may contain abnormal constituents which will, at least under certain circumstances, cause a reduction of the test solution (Fehling's) with production of red cuprous oxide. Such substances are: uric acid and creatinin, when present in large quantities; milk sugar, allantoin, mucin, pyrocatechin, hydrochinon, urobilin, biliary pigments. The same reduction occurs after the administration of benzoic, salicylic, or oxalic acid, glycerin or chloral. Hence it is always advisable to employ, alongside of the alkaline copper sulphate reagent, a second one which is not liable to the same drawback The most preferable are: the fermentation test, the polariscope test, or Nylander's alkaline bismuth tartrate solution.

On the other hand, it often happens that, though urine contains sugar, yet cuprous oxide fails to separate in consequence of the presence of certain compounds interfering with its precipitation. Such compounds are: ammonium salts, creatin, albumen, and products derived from the latter by the caustic alkali of the reagent itself. The interference of ammonium salts may be overcome by heating the urine with caustic alkali until all

the ammonia has been dissipated. In the presence of the other substances a separation of cuprous oxide may often be promoted by suitably diluting the urine after it has been boiled with the reagent, or by cooling it, or in other ways.

The non-appearance of a reaction, when Fehling's test is applied to a sample of urine, is, therefore, not an absolute proof of the absence of sugar. But there is a very simple method to make the result certain, as will be seen presently. If the reaction is prevented by the presence of bodies such as those before mentioned, it will be readily understood that, even if a small quantity of glucose solution were purposely added to the urine, the separation of cuprous oxide would still be prevented. Of course the quantity of glucose thus added must be properly regulated, and the test is best made in the following manner: Heat two test tubes, each containing 5 cc. of Fehling's solution, until the latter boils, then add to one of them 1 cc. of the suspected urine previously diluted with an equal volume of water, and to the other 1 cc. of the same urine previously diluted with an equal volume of a 1 per cent. aqueous solution of glucose, and again apply heat until the contents of the test tubes boil. If there is now still no change in the two liquids, it may safely be concluded that there are substances present which interfere with the reduction of the copper salt. In such cases, then, recourse must be had to other reliable sugar tests. If, however, there is a reduction in the test tube to which glucose solution was added, this proves the absence of substances interfering with the test; hence, if no reduction took place in the test tube to which the urine was added, the latter may be safely regarded as free from sugar.

## HYGROSCOPIC CHARACTER OF CAMPHOR AND THYMOL.

In the course of a physiological investigation of the irritability of a fungus, Professor Errera was led to the conclusion that camphor possesses a considerable hygroscopic capacity, which is not shared by thymol. Accurate experiments by Herr Clautriau have substantiated this opinion, and show that whereas 40 grains of camphor will absorb 0·054 gm. of water from air saturated with aqueous vapor at 16° C., thymol does not perceptibly increase in weight under the same condition. The absorption of water by camphor must be purely a physical phenomenon, since the condensed moisture is readily removed even under the influence of anhydrous camphor. The dry substance, although it attracts a comparatively small quantity of water, does so with such energy that its weight increases even in air containing but little moisture.

## A GENUINE TEXAS SHOTGUN.

*Meyer Brothers' Druggist*, publishes the following: Below find a correct copy of a prescription handed me to be filled not long ago. Please publish as a genuine shotgun. If any of the boys can beat it I would like to hear from them through your columns:

| | |
|---|---|
| Oil tar | dr. ss |
| Oil cubeb | dr. ss |
| Tincture phosphorus | dr. ¼ |
| Spirits of eucalyptus | dr. ss |
| Nitro glycerin | dr. ¼ |
| Tincture boyberry | dr. ss |
| Nitrate sanguinarae | gr. ij |
| Sul hydrastes | gr. vij |
| Boracic acid | gr. xx |
| Asepcine | gr. iv |
| Iodine | gr. ij |
| Alum pulverised ex. | dr. j |
| Sulphur | dr. ij |
| Lycopodium | dr. iij |
| Vaselin | oz. j |

M. Et. ft. ungt. Sig.: Use three times per day.

——, M. D.

It ought to make a hit!

## NEWS AND MISCELLANY.

### HOW TO IMPROVE THE POSITION OF THE PROFESSION.

Dr. Orlando Jones, in his presidential address to the Harrowgate Medical Society, took for his subject the Possibility of Improving the Position of the Medical Profession. He infers from the writings of Pliny, the medical learning of Druids, and from those of Ptolemy, that their wealth was equal to their learning. Such being the honored and happy case of the ancient representatives of medicine, he argues that it should not be otherwise with the present practitioners. He does not look for any amelioration in the position of the profession by attacking the Council of the Royal College of Surgeons, or by a mere increase in the direct representation of the profession in the Medical Council. These are his negative views. The first of his positive suggestions for improving the tone of the professson is the introduction of a law enforcing at least one year's apprenticeship before the commencement of medical study; the second is the formation of a fund for the benefit of the profession, encouraging thrift among the active and giving help to the less fortunate. There is something to be said for both suggestions, but we confess to thinking them entirely inadequate as the sole levers by which the positive tone and power of the profession are to be raised.—*Lancet.*

## THE SONG OF THE BACILLUS.

Once I flourished unmolested, now my troubles never cease;
Man, investigating monster, will not let me rest in peace.
I am taken from my kindred, from my newly wedded bride,
And exposed—it's really shameless—on a microscopic slide.
Sure some philbacillic person a society should start
For protection of bacilli from the doctor's baleful art.

Koch the evil game first stated, and his lymph came squirming in,
But, 'twixt you and me, bacilli did not care a single pin.
We went elsewhere in the body, and it only made us roam.
But it's hard, you must admit it, to be worried from your home;
And methinks the hapless patient had much rather we had rest,
When he finds us wildly rushing up and down his tortured breast.

Then came Bernheim and his dodges; his specific is to flood
All the circulation freely with injections of goat's blood.
That is really rather soothing, and it doesn't seem to hurt,
Though they lacerate your feelings with an automatic squirt;
Time will show if it's effective, but 'twill be revenge most sweet,
If the patients take to butting every single soul they meet.

Next fierce Liebriech, quite a savage, has declared that we shall die,
Shattered and exacerbated by the dreadful Spanish fly,
We should like to ask the patient if he thinks he'll live at ease
With his system impregnated with that vile cantharides?
We perchance may fall before it, waging an unequal strife,
But it's any odds the patient will be blistered out of life.

Therefore, O my friends, take heart, and these indignities endure,
Although every week brings news of an indubitable cure;
We have lived and flourished freely ever since the world began,
And our lineage is as ancient surely as is that of man;
While I'll venture the prediction, as a wind-up of my song,
That, despite these dreadful doctors, we may haply live as long.

—*From Punch.*

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THE ODOR OF FLOWERS is controlled, as has lately been shown, by light and partially by air; excluding these agents flowers cease to exhale their perfume.

## NEW BUILDINGS FOR THE JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA.

The Board of Trustees and the Faculty of the Jefferson Medical College have just completed the purchase of two large lots on Broad street, giving them a frontage of about 300 ft. and a depth of 150 ft., upon which they will proceed to erect at once a handsome hospital, lecture hall and laboratory building. The estimated cost of the building is $500,000. The hospital will be built not only as a suitable building in which to care for the sick and injured, but also will be provided with a large amphitheatre for clinical lectures. The basement of the hospital building will be given over to the various dispensaries, each of which will be provided with large waiting and physicians' rooms, as well as rooms for direct teaching for students. All the buildings will be absolutely fire proof and provided with patent sprinklers in case their contents catch fire. By the erection of three commodious buildings, the laboratories where delicate work with the microscope or apparatus is carried on, will be separated from the college hall where didactic lectures are given and so will be free from any jarring produced by the movement of large classes. With the hospital on one side affording clinical facilities, and the laboratory on the other side of the college hall for scientific research and training, the college will be most favorably situated for giving thorough instruction in medicine. Further than this, immediately across the street is the Howard Hospital, and on the adjoining corner the Ridgway branch of the Philadelphia Free Library, which contains all the scientific works belonging to this wealthy corporation. The new site is even more favorably situated in regard to the centre of the city than the old one at Tenth and Sansom streets. The move has been made necessary by the large number of students who are now being instructed in this institution, and because the Faculty desire to keep the school and hospital in the foremost rank of medical education in this country.

The buildings will be ready for occupancy in the session of 1893 and 1894.

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## DEATH BY HANGING.

The *St. Petersburger Medicinische Wochenschrift* gives a *résumé* of a paper by A. S. Ignatovski on the cause of death by hanging. He refers the rapid loss of consciousness after suspension to the retarded or arrested circulation in the brain brought about by the increased intra-cranial blood pressure. The

effect of this impediment to the circulation is the same as in cerebral anæmia, for in both the nutrition of the brain suffers. It is therefore, not as Leofman teaches, an insufficient supply of blood to the brain, due to compression of the carotids, which interferes with the functional activity of the brain, but compression of the capillaries by increase of the intra-cranial pressure, which has this effect, and which occurs whilst the supply of blood remains the same, or even increases.—*Lancet.*

## PHYSICIANS IN CANADA.

Dr. R. W. Powell, of Ottawa, says (*Montreal Medical Journal*) that Canada has about 4,180 medical practitioners, arranged by provinces about as follows:

| | |
|---|---|
| Ontario | 2,300 |
| Quebec | 1,110 |
| New Brunswick | 170 |
| Nova Scotia | 300 |
| Prince Edward Island | 60 |
| Manitoba | 140 |
| Northwest Territories | 50 |
| British Columbia | 60 |
| | 4,180 |

## TANNIN IN DIPHTHERIA.

Goyard has for several years followed this method of treatment in diphtheria with very satisfactory results (*Traitement Abortif au Croup et de la Diphtérié par le Tannin*, G. Carré, Paris, 1891). The treatment consists simply in the free application of tannin to the naso-pharynx. He uses for this purpose a round sponge, about half the size of an ordinary thimble, fastened to a piece of whalebone. Having first dipped the sponge in water and squeezed it between the fingers, he covers it with tannin by thrusting it into a box containing that substance, without weighing or measuring the dose. The patient being in the sitting position with his head a little raised, the tongue is held down with the left index, which is used as a guide for the sponge. The essential point, according to Goyard, is to get the sponge well beyond the isthmus faucium; after being kept for a second or two against the posterior wall of the pharynx it is withdrawn. When the disease is slight and in the incipient stage one application of this kind is said to be sufficient; in a case of croup or diphtheria following the ordinary course the tannin should be applied every two hours, the frequency of the local medication being reduced as the local and general symptoms of the disease subside. Goyard thinks the same method is indicated in all anginæ and laryngeal inflammations of miasmatic origin. The earlier the treatment is begun the more successful it is, and he urges the routine use of the tannin method in all cases of sore throat as a preventive of graver forms of disease.—*Brit. Med. Jour.*

## PRESCRIBING OPTICIANS.

The law relating to the practice of medicine on the Continent is, as we know, administered with a far juster regard for the interests of all concerned than it is in this country, the reason of which is that it is not left to corporations and colleges to take action when rights are infringed and all illegal practice openly carried on. This is made manifest by a decision given by the law courts at Havre. An optician was successfully prosecuted for giving advice as to the condition of a patient's eyes, and who prescribed glasses to remedy the defect of vision. The court ruled it to be just as illegal to order spectacles as to order remedies or give medical advice without being a possessor of the diploma recognized by law. Prescribing and advertising opticians are becoming a nuisance in London, and will soon require to be looked after by the Medical Defence Union.—*Med. Press.*

## POLYPHARMACY.

A Birmingham (Ala.) pharmacist, sends the following copy of a prescription he has on file:

℞ Syr. simplex,
Syr. limonis,
Fl. ext. cascara sag.,
Fl. ext. lupulina,
Fld. ext. euonymus atropurp,
Fl. ext. yerba santa,
Fl. ext. hydrastis canad.,
Fl. ext. pruni virg ..... ää ʒ ss.
Fl. ext. berberis aquifol ..... ʒ ij.
Fl. ext. mangifera ind.,
Fl. ext. jaborandi ..... ää ʒ ij
Fl. ext. barosma betulina,
Fl. ext. uva ursi,
Fl. ext. kava kava,
Fl. ext. ailanthus glanduloss,
Fl. ext. saracenia flava,
Fl. ext. cimicifuga racemosa ..... ää ʒ ij.
Fl. ext. cereus grandiflor ..... ʒ ss.
Fl. ext. pumus boldo ..... ʒ j.
Fl. ext. piscidia erythrina ..... ʒ ss.
Fl. ext. rad. aconiti ..... gtt. xx.
M. et sig.: Use as directed.

This the correspondent thinks will compare very favorably with "Venice treacle."—*Amer. Drug.*

It has also been pointed out that the greatest number of perfume-scented flowers are white, while those of brown and orange color generally possess a disagreeable odor.